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ABSTRACT

Several specific research approaches are compared with regard to cost-effectiveness, types of disorders to which they best respond, general strategies, and therapist personality. Replicated findings include: (1) support for both the functional reversal and semantic reversal of the "A-B Scale;" (2) characterization of therapists who are effective with neurotics, through use of a new scale involving rejection of problem solving; (3) identification of therapists who are effective with schizophrenics, through a scale determining level of interest in the patient; and (4) requirement of great tolerance and understanding when working with schizophrenics. Future research must give careful consideration to defining both client and therapist population. (Author/CKJ)

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Exploring the Psycho-Social Therapies Through the Personalities of Effective Therapists

Drug-Free Psycho-Social Therapy With Schizophrenics, Depressives, Neurotics, and Juvenile Delinquents, and Therapy Plus Drugs with Schizophrenics

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Preface

The National Institute of Mental Health has long been interested in the effectiveness of various ways of dealing with the mental, emotional, and behavioral disorders. However, there is a continuing problem in evaluation in that it is sometimes difficult to describe accurately what goes on in therapy. I have adopted an approach pioneered by Whitehorn and Betz, namely: By studying the *personality of the intervener*, we might better understand what is being done, and thereby assess the effectiveness of specific kinds of interventions.

The studies are presented chronologically, and in the first person, to enable the reader to see clearly where the ideas and methods came from, where they went awry, and where, indeed, they appear to have worked well. The use of "we" in chapter V, however, is not editorial; that chapter reports the collaboration with George Furse in the study of juvenile delinquency.

This report was prepared with two audiences in mind. Persons who are primarily interested in practice will want to read chapters I, II, VI, and VIII, and they may also want to look at appendices 2 and 10. Technical material has been kept to a minimum in these portions of the report. The specific findings are reported in chapters III, IV, and V, and research considerations are discussed in chapter VII and in appendices 1 and 3 to 9.

A number of critical issues are considered, some of them methodologic, others substantive. One recurring question concerns the extent to which it may be possible to specify *good* psycho-social therapy in general. Or must we find *the* psycho-social therapy which is *appropriate* to each type of human problem? On this issue will ultimately depend the optimal designs for mental health services, for mental health research, and for mental health training.

James K. Dent, Ph.D.

Acknowledgments

The research reported here would not have been possible without the tireless work of many people, most of whom received no monetary compensation for their work. First of all there are the respondents who must remain nameless. But I wish to mention the staff at the Loysville (Pa.) Youth Development Center who not only responded to three questionnaires, they also filled out innumerable rating sheets and diagnostic forms, frequently taking these things home to work on them.

Vivian E. Dent, my wife, assisted in the design, the data collection, and the analyses, and reviewed the manuscript. Jonquil Furse helped with the design of data collection at Loysville. Lynne Hottle assisted in some of the analyses.

Irvin L. Child made available to me all his questionnaires and a number of unpublished papers. The importance of his work is discussed below (pages 21, 108). But he must not be held responsible for what I have done with his materials, as indeed is the case for others whose help is acknowledged here.

Daniel Katz commented on this research at various stages in its development and provided valuable criticisms of the manuscript. Victor Fields, Jill Rierdan, and Mary Philipp also contributed valuable comments.

The interest that Barbara J. Betz took in this work is attested to by the frequent references below to ideas and hypotheses running far beyond her published works. Joseph H. Stephens made available from the files of the Henry Phipps Clinic large amounts of data that were essential to the work that is pursued here.

The late John C. Whitehorn spent many hours talking with me about this area of research, how it had developed, what pitfalls it presented, and what promise it held for the future. Among my deep regrets is that his work was not sufficiently appreciated during his lifetime. I would have liked particularly for him to have read this report.

Many persons assisted in the collection of the questionnaires. They are nameless since I do not wish to indicate whence the questionnaires came. In addition to the direct mailings, questionnaires were collected in a variety of clinical settings. The cooperation of Victor Fields was essential at the early stages of data collection.

Essential statistical and computer assistance was provided by John J. Bartko, Berthold Brenner, Ray Danner, Kirk L. Dorn, Wayne E. Johnson, Nils B. Mattsson, Charles P. Pautler, Jr., Donald S. Rae, Robert R. Rawlings, Margaret T. Roper, and David Vansant. Valuable comments on the manuscript were received from Morris Parloff, Milton F. Shore, Karen D. Pettigrew, and Irving D. Goldberg.

My coauthor in chapter V, George A. Furse, labored long and effectively in the design and execution of the large study of juvenile delinquents. Though only one chapter in this report, it is a capstone of the research structure.

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Abbreviations and Coded Variables

A-B For group A (effective therapists) and group B (not so effective), A-B is attached to any variable that relates to effectiveness with one or another of the mental or behavioral disorders.

"A-B Scale" More properly an A-B Predictor, this refers to 23 items from the Strong Vocational Interest Blank which were found by Whitehorn and Betz to relate to therapists' effectiveness with schizophrenics. (See page 17). Also called "W-B 23."

A-B Predictor Any collection of items that is related to success with a particular diagnostic group. A predictor is usually multidimensional, i.e., it contains more than one A-B cluster.

A-B Cluster Any group of items within a single A-B predictor which are appropriately intercorrelated and can be presumed to belong to a single dimension or personality characteristic. (In appendix 2, A-B Clusters are called "A-B Subscales.")

ABDRUG A six-item predictor for therapists' success with schizophrenics when drugs are prescribed. (See page 48.) This predictor is comparable to TOTL S among the drug-free predictors.

Alpha A coefficient ranging from 0 to 1, and measuring the degree of internal consistency (unidimensionality) in a group of items. Usually called "Coefficient Alpha." (See page 109.)

BC-1, BC-2, BC-3, and BC-4 See below: Quay 1, Quay 2, Quay 3, and Quay 4.

D SVIB items that correlate with effectiveness with depressives and *only* with depressives, and are included in the PTQ. This is a depressive-specific, drug-free predictor. (See page 42.)

DBUSNS An A-B cluster within D. These items, all related to business pursuits, are rejected by therapists effective with depressives. (See page 43.)

DCIVIC An A-B cluster within D. These items seem to represent a broad social concern and a rejection of rugged individualism. (See page 43.)

DN Items that correlate with effectiveness with *both* depressives and neurotics. It is a weak, drug-free predictor. (See page 42.)

D OTHR Items that correlate with drug-free effectiveness with depressives but found too late in analysis to include in the PTQ. (See page 42.)

ECT Electroconvulsive therapy.

F Scale "Authoritarianism," items that measure ethnocentrism indirectly. (See "Antidemocratic," page 136.)

Form C A second revision of the PTQ. (See appendix 8.)

Gamma A rank-order correlation coefficient which can be interpreted as the proportion of nonreversals in rank. (See page 105.)

MMPI Minnesota Multiphasic Personality Inventory. A personality test concerned primarily with psychopathology.

MP Manifest personality scale. Items in such a scale are measuring what they appear to be measuring. By contrast, in criterion-based scales (A-B predictors and clusters, the F Scale, and the Independence of Judgement Scale) the items may not look at all like the dimensions they measure.

MPRV Criterion of therapist effectiveness. In the Phipps data, it is the percent of patients improved. In the Loysville data it is an average of ratings of improvement by judges and helpers. A letter or number is added to MPRV to indicate the diagnosis of the clients for which it was computed. (See pages 41 and 59.)

MPRV D Percent improved of depressives (Phipps Clinic).

MPRV N Percent improved of neurotics (Phipps Clinic).

MPRX S Percent improved of schizophrenics (Phipps Clinic).

MPRV 1 Average rated improvement in neurotics (Loysville).

MPRV 2 Average rated improvement in situationals (Loysville).

MPRV 3 Average rated improvement in subculturals (Loysville).

MPRV 4 Average rated improvement in manipulators (Loysville).

MPRV 5 Average rated improvement in conformists (Loysville).

MPRV 6 Average rated improvement in asocial (Loysville).

N SVIB items that correlate with effectiveness with neurotics and *only* with neurotics, and are included in the PTQ. This is a neurotic-specific, drug-free predictor. (See page 42.)

N OTHR Items that correlate with drug-free effectiveness with neurotics but were found too late to be included in the PTQ. (See page 43.)

NSOLVE An A-B cluster within N. These items relate to problem solving and are rejected by therapists effective with neurotics. (See page 44.)

NQEST1 An A-B cluster within N. The items are heterogeneous but include a liking for literature. (See pages 44 and 73.)

NQEST2 An A-B cluster within N. The meaning is unclear.

PTQ Personal Tendencies Questionnaire (See appendices 3, 4 and 8.)

QUAY 1 Quay and Parsons classification for "Inadequate-Immature." Specifically, Quay 1 stands for a 15-item scale that is supposed to predict success with this type of delinquent.

QUAY 2 Similar to QUAY 1 but for "Neurotic-Disturbed."

QUAY 3 Similar to QUAY 1 but for "Unsocialized-Psychopathic."

QUAY 4 Similar to QUAY 1 but for "Socialized-Subcultural."

r The Pearsonian product-moment correlation coefficient.

S SVIB items that correlate with effectiveness with schizophrenics, and *only* with schizophrenics, and are included in the PTQ. This is a schizophrenic-specific, drug-free predictor. (See page 42.)

SD SVIB items that correlate with drug-free effectiveness with both schizophrenics and depressives. (See page 41.)

S OTHR SVIB items that correlate with effectiveness with schizophrenics but were found too late to be included in the PTQ. (See page 42.)

SQUEST An A-B cluster within S. These items are heterogeneous. They may possibly represent extroversion. (See pages 43 and 47.)

SXPRSA An A-B cluster within S. These items have in common a liking for active, involved, social expression. (See page 43.)

SXPRSS An A-B cluster within S. Social expression, but not so active and involved. (See page 43.)

SVIB The Strong Vocational Interest Blank. In the present studies it refers only to the 400-item Form M.

TAT The Thematic Apperception Test, a projective (pictures) personality test.

TOTL D All those SVIB items in the PTQ that correlate with drug-free effectiveness with depressives.
TOTL D = D + SD + DN. (See page 41.)

TOTL N All those SVIB items in the PTQ that correlate with drug-free effectiveness with neurotics.
TOTL N = N + DN. (See page 41.)

TOTL S All those SVIB items in the PTQ that correlate with drug-free effectiveness with schizophrenics.
TOTL S = S + SD. (See page 41.)

V.A. Veterans Administration, specifically a study done in outpatient clinics by McNair, et al.

W-B 23 The 23-item "A-B Scale" of Whitehorn and Betz. Specifically, the variable consists of the original scores for the Phipps Clinic residents as computed by Betz on the system indicated in table 1.

W-B 22 A score computed from the PTQ for 22 of the 23 items and highly correlated with the W-B 23. (See pages 32 and 106.)

YDC Youth Development Center, specifically the one at Loysville, Pennsylvania.

Chapter I

Overview

Studies of the effectiveness of the psycho-social therapies have been plagued on the one hand by "null" findings (no effects, no differences, etc.) and on the other with inconsistent findings (findings that don't "add up"). The reason may be that the various psycho-social therapies are not themselves clearly defined and are rarely themselves "measured" when research is done on them. It is proposed that the therapies be defined by the personality characteristics of therapists, and that the *salient* dimensions of these therapies be defined by personality characteristics of *effective* therapists. Evidence of the validity of these premises is summarized in chapter II.

This is not to suggest that studies of therapists' personalities are more useful than studies of therapists' behaviors or of therapeutic processes. Rather, the various approaches are viewed as complementary. It is much cheaper to study therapists' personalities than to study their myriad behaviors. Moreover, understanding therapists' personalities attaches meaning to their behaviors. Such understanding gives us broad hints about what therapists do and it suggests what to look for in therapeutic processes. There are, unfortunately, in many clinical settings, rooms full of tapes and films that have never been analyzed. Simply defining what we should look for is a prodigious task in itself.

Accordingly, considerable attention is given in chapters II and VII to the probable cost-effectiveness of various research approaches. Guidelines are set forth to help us in exploring uncharted areas. In the absence of research on comparative research strategies, no conclusions are possible. But the thesis is advanced that research purposes sometimes require simple, naturalistic designs. Such designs may not only be more cost-effective, but possibly more effective in absolute terms, than the complex, costly, contrived designs. The studies reported here illustrate such simple designs. It is important to emphasize that the resources that were committed to these studies are miniscule compared to many other studies of psycho-social therapies. Of course, verification of worth can come only with repeated studies that are carefully evaluated.

The studies to be presented also illustrate *comparative* research strategies (comparing neuroses with the schizophrenias, etc.) as opposed to *categorical* studies (of a single disorder). Again it is not asserted that comparative studies are superior, but only that this approach has probably been undervalued in the overall distribution of research efforts.

The comparative approach facilitates consideration of one issue that has wide ramifications in the definition of services, and their design and evaluation. This issue might be posed: To what extent do the various mental disorders require similar therapies (the generalist approach) or does each disorder require its own specialized therapy (the differential hypothesis)? The findings of the studies presented here, as well as of the other studies, are very much in support of the differential hypothesis. In this way, the comparative approach serves to define the generality of findings from the categorial studies. The differential hypothesis has widespread implications for the design of mental health programs, but much more research is needed before these implications can be elaborated with confidence.

The comparative approach also helps us to define "regions" or "rubrics." What are the limits of the region called "mental disorders"? Findings to be presented suggest that there is considerable overlap between the region called "mental disorders" and the region called "delinquency." While this overlap has been recognized for many decades, there has been little progress in defining how the two regions differ, or whether, indeed, there are two regions or many. The present findings suggest that juvenile delinquents are even more heterogeneous than are the mentally disordered. There is no one correct approach to

delinquents, but rather an appropriate approach to each type of delinquent, some of the approaches being in opposition to each other. Great progress has been made in recent years in the differential treatment of juvenile delinquents.

These studies to be presented are concerned with one-to-one therapy. The *social* nature of such "psychotherapy" is emphasized and suggestions are made that certain characteristics of one-to-one therapy will generalize to milieu therapy and to other psycho-social therapies.

The present research grows out of the work of Whitehorn and Betz with schizophrenics at the Henry Phipps Clinic of the Johns Hopkins Hospital. The findings serve to clarify their work and to explain the anomalies in findings of others who have tried to work with their "A-B Scale" predicting success with schizophrenics. New light is shed on the "functional reversal" of this scale—the fact that it tends to reverse as we pass from one diagnostic group to another. In addition, there is new evidence presented that the scale tends to reverse its meaning (the "semantic reversal") as we pass from hospital to nonhospital therapists.

While many statistical findings are presented, some of them must be viewed as tentative, pending replication, because the methods that are used are not established ones. However, there are some findings that are replicated in more than one sample. (1) Both the functional reversal and the semantic reversal of the "A-B Scale" are supported in various ways. Indeed, the findings clearly suggest that the semantic reversal probably explains many of the inconsistencies that have been observed in the various studies using the "A-B Scale," and that the functional reversal is unlikely to be found with consistency unless the therapists and patients are drawn from certain defined populations. (2) A new scale involving the rejection of problem solving is found to characterize therapists who are effective with neurotics both at the Phipps Clinic and among neurotic delinquents at the Loysville Youth Development Center. This is taken as evidence in support of Freud's concern that the neurotic client be allowed to solve his own problems. (3) Another new scale suggests that therapists effective with schizophrenics take an active, involved interest in the patient. This supports the findings of Whitehorn and Betz that schizophrenics require active, participative leadership. (This requirement may not hold when drugs are prescribed.) (4) But regardless of whether drugs are prescribed, evidence is presented that schizophrenics must be treated with tolerance and understanding.

There is considerable attention to the assumptions underlying this research and to the implications of the findings for future research. Of particular importance is the careful definition of the population of clients and the population of therapists that are being studied.

Chapter II

Introduction

These studies will be reported chronologically—"as they happened." I am concerned not only with what we learn but also with *how* we learn. A chronological presentation makes it more clear how the knowledge was gained, what errors were made, and how best to proceed with further studies.

The two lines of inquiry—what we know, and how best we learn—are interwined. Some effort will be made to separate them, for some readers will be concerned primarily with the clinical substance, not the methods and strategies of research. Insofar as possible, technical matters are relegated to footnotes and appendices in order to maintain the continuity of clinical content.

Unfortunately, there are some issues of substance which turn upon issues of method. For example, some people are convinced that the psycho-social therapies are ineffective. This important issue requires some consideration of methods in order to interpret data that are presently available. But first we need to define where we are.

My interest in the effectiveness of the psycho-social therapies arose from an interest in the organizational design of effective mental health service programs. I came to the conviction a dozen years ago that we could not design or evaluate mental health programs very well unless we understood the effectiveness of the *elements* of those programs. While there is some evidence to support this conviction, it is not the kind of proposition that lends itself to ready proof. In any event, I set out to study the effectiveness of elements of mental health service programs. I soon found myself in trouble here, for the elements were not well defined, at least not with the kind of precision that a researcher needs.

For almost any kind of problem it is useful to have (1) a statement of the desired outcome (reduce anxiety), (2) a definition of the problem, sometimes called a diagnosis (repression), and (3) a definition of an appropriate intervention (free association). These three types of variables—outcome, control variables, and interventions—are presented in detail elsewhere (Dent, 1966).

Progress has been made in the definition of outcomes, sometimes called criterion variables, or dependent variables (Waskow and Parloff, 1974; Berzins, Bednar, and Severy, 1975). With respect to the control variables, the most important seems to be diagnosis. While progress here is slow, new distinctions and new criteria are continually emerging. Individual diagnoses continue to be somewhat unreliable, but diagnoses derived from a consensus of several sources have been found to be very useful in statistical analyses of the mental disorders. The importance of diagnosis can be seen by looking again at the illustration in the last paragraph. If we substitute "phobia" for "repression," then "free association" is no longer the appropriate intervention.

The word "evaluation" is used ambiguously in clinical practice. Frequently, it means diagnosis rather than evaluation (the actual measured outcome). Insofar as diagnosis carries a prognosis, evaluation may be implied. This confusion of two concepts which may be statistically related but are conceptually different contributes to the pejorative dangers of diagnosis and inhibits our understanding of effective and ineffective treatments. If a process schizophrenic recovers, many clinicians do not look for the reasons; they simply conclude it was not process schizophrenia. Small wonder that psychiatric diagnoses are not respected.

It is with respect to the interventions (the therapies, the independent variables) that the situation is most confused. On the one hand, we now have precise definitions of certain kinds of drug interventions and these interventions are specific to certain diagnoses. On the other hand, with respect to the psycho-social therapies, we use such words as "psycho-

analytic," "nondirective," "milieu," and so forth. As descriptions of what therapists actually do, these words are not at all precise. One solution to this problem is to attempt to describe the personality of the therapist. This chapter is concerned with the rationale and the empirical evidence supporting such an approach, and with the issues that must be dealt with in defining the psycho-social therapies.

Why Study the Personality of the Therapist?

Why study the personality of the therapist? This question is particularly appropriate since two of the giants of psychotherapy, Sigmund Freud and Carl Rogers, tended to view the personality of the therapist as something to be kept out of therapy. Both of them emphasized technique.

Freud wrote in 1913:

> I adhere firmly to the plan of requiring the patient to recline upon a sofa, while one sits behind him out of his sight .... Since while I listen, I resign myself to the control of my unconscious thoughts I do not wish my expression to give the patient indications which he may interpret or which may influence him in his communications (1959, vol. 2, p. 354).

In 1951, Rogers wrote:

> There can be no doubt that every therapist, even when he has resolved many of his own difficulties in a therapeutic relationship, still has troubling conflicts, tendencies to project, or unrealistic attitudes on certain matters. How to keep these warped attitudes from blocking therapy or harming the client has been an important topic in therapeutic thinking.
>
> In client-centered therapy this problem has been minimized considerably by the very nature of the therapist's function. Warped or unrealistic attitudes are most likely to be evident wherever evaluations are made .... In any therapy in which the counselor is asking himself "How do I see this? How do I understand this material?" the door is wide open for the personal needs or conflicts of the therapist to distort these evaluations. But where the counselor's central question is "How does a client see this?" and where he is continually checking his own understanding of the client's perception by putting forth tentative statements of it, distortion based upon the counselor's conflicts is much less apt to enter, and much more apt to be corrected by the client if it does enter (1951, p. 42).

Thus both Freud and Rogers with their very different techniques hold a common view that technique *should* and *can* prevent the intrusion of a therapist's personality into the therapeutic process. It is a reasonable generalization that most cognitive therapists, behavior therapists, and behavior modifiers would agree with this position. In contrast, Carl Jung wrote in 1934:

> It is in fact largely immaterial what sort of technique he uses, for the point is not the technique but the person who uses the technique .... the personality and attitude of the doctor are of supreme importance—whether he appreciates this fact or not .... the Freudian school asserts that this has nothing to do with psychoanalysis. Psychoanalysis is evidently a technique behind which the human being vanishes, and which always remains the same no matter who practices it. (1964, p. 159-163).

In 1953, Therese Benedek reviewed the traditional view of the countertransference, namely: by emphasizing technique and sitting behind the patient, therapists can keep their own personalities out of the therapy. She questioned that this was possible, and after giving many examples, concluded that "a therapist's personality is the most important agent in the therapeutic process" (Benedek, 1953, p. 208). As we shall see below, a formidable array of clinicians and clinical researchers (Menninger, Prinzhorn, Riemann, Strupp, and Sullivan) agree with Jung and Benedek that the personality of the therapist is a critical variable.

But the disagreement is more apparent than real. To deal with it we must understand the relationship among the following three sets of variables: (1) the formalized or idealized techniques, (2) the actual behaviors of individual therapists in therapy, and (3) their personalities. Of particular interest is a study of therapeutic styles which was done by Marylou Lionells in 1967.

Lionells built her conceptions of therapeutic styles on the works of Gilbert and Levinson (1956), Sharaf and Levinson (1957), Hollingshead and Redlich (1958), Strauss et al. (1964), and Sundland and Barker (1962). She was particularly influenced by the work of Hans Strupp (1955 and 1960). Strupp had found that

he was unable to discriminate among therapists' behaviors on the basis of their profession or their theoretical school. He concluded that the chief differences among therapists with respect to their techniques are probably determined by their personalities (Strupp, 1960, p. 285, 288, 307). Lionells therefore set out to answer the question: What determines a therapist's style? Is it training (psychiatrist, psychoanalyst, psychologist, social worker), theoretical orientation (Freudian, Sullivanian, Rogerian, and so forth), or personality (as measured by the TAT and a self-rating inventory)?

What is therapeutic style? This question requires a brief discussion. There is a great deal of concern with what acutally goes on in therapy. What does the therapist *do*? Such an emphasis serves the current scientific *Zeitgeist* of behaviorism, and it also serves certain professional needs that will be discussed further below. From the standpoint of research strategy the emphasis on behavior has been a mixed blessing. While behaviorism has made our thinking and our research methods more precise, there have been two major failings. First, there is a tendency to get lost in a mass of complex detail that doesn't seem to add up to anything, and second, there is a tendency to lose sight of the fact that therapy is a relationship. It is described not simply by the behavior of the therapist and of the patient but also by the relationship between them. In fact, Sloane et al. (1975) found that the relationship measures were particularly potent predictors of outcome.

The cumbersome phrase "psycho-social therapies" is used in order to keep firmly before us the fact that there are many psychotherapies and they are defined not simply by what the individuals do, but also by the reciprocal meanings of their acts, i.e., the relationships between the individuals. All of the psychotherapies are not only psychological, they are also social.

The cumbersome phrase has another purpose, namely, to avoid artificial boundaries that tend to be set between psychotherapy and behavior therapy, between psychotherapy and milieu therapy, between psychotherapy and various group therapies, and so forth. These boundaries tend to limit our vision. It is my expectation that we will someday find that certain kinds of psychotherapy are less akin to other kinds of psychotherapy than they are to certain kinds of milieu therapy—someday, when we understand how various kinds of relationships affect outcomes. Thus, although the research to be presented is all in the *one-to-one context*, it is hoped that the relationships explored can ultimately be *differentiated within* and *generalized across* our current psychosocial therapeutic modalities.

Understanding the appropriate relationships may facilitate generalization, i.e., types of relationships may generalize more easily than specific behaviors. The specific behaviors appropriate to a particular relationship may be different in different modalities.

Consider the word "nurturant." This word can be conceived to describe a therapist but it is also descriptive of one-half of a social relationship. If the social relationship is reasonably stable, then the other half can be presumed to be reciprocal: accepting nurturance. Consider now the myriad behaviors that might be observed which might be indicative of a nurturant relationship. Consider also that for many of these behaviors, we would need to know the age and sex combinations involved in order to be certain that they indeed indicated nurturance. It might be nice to have all this detail. On the other hand, if nurturance is of no significance in the therapeutic relationship—there is no present knowledge of this—then there is a question that we ought to devote our energies to the detailed study of nurturant behaviors. If we can characterize relationships at a more global level, as a preliminary test, we can determine which kinds of relationships should be studied more intensively.

The important thing here is that therapeutic style is not simply a set of behaviors. It also defines characteristic relationships between therapists and clients.

In defining therapeutic styles, Lionells derived her data from lengthy interviews with 177 psychoanalysts, psychiatrists, psychologists, and social workers. Factor analysis of specific therapeutic behaviors yielded five styles which Lionells labeled "egalitarian," "dogmatic," "normalizing," "pragmatic," and "authoritarian." Examples of the behavior

items are: "the therapist generally uses free association" and "the therapist will sometimes use confrontation techniques." Through factor analyses, these behaviors were clustered, a particular behavior being associated with one or more therapeutic styles, or alternately, a style being defined by a cluster of behaviors.

Lionell's analysis is interesting but lengthy and complicated. Summarizing, she writes: "Given a certain personality configuration, the therapist will tend to adopt one therapeutic style over another, to a large extent, regardless of the theoretical school into which he has been indoctrinated and the profession he has chosen" (Lionells, 1967, p. 247). While professional training and theoretical position do influence style, they are relatively minor compared to the influence of personality. Thus, if one wants to know more quickly and easily what a therapist *does* in therapy, one does not inquire about training or therapeutic identification. One inquires into his or her *personality.*

Perhaps we should not be surprised that the therapist's style is related more to personality than to training. All psychotherapists are trained to be aware of themselves, to try to be true to themselves, to be genuine. In a sense then, we train therapists to express themselves. More importantly, since there is very little sure knowledge of how they should relate to different kinds of patients, it is only natural that they should relate to them naturally. Perhaps, at some future time when we have sounder bases for telling them how to relate to various kinds of patients, we will find that training is more important then personality.

There is yet another way to view these findings. When we speak of technique, we are talking about prescribed technique, e.g. psychoanalysis. What actually goes on in "psychoanalysis" is quite variable. Technique refers therefore to the prescribed behavior for a particular type of therapy; it does not describe the actual behavior of therapists. For that, we must conduct detailed observations, or, we may approximate that behavior by attempting to measure the therapist's personality.

Finally, and most troublesome, if researchers have evaluated psychotherapy, and they can tell us only that it was "psychoanalytic" or "supportive" or some such theoretically prescribed technique, we must reluctantly accept the fact that we don't really know very much about what was evaluated, what therapeutic styles were used in the therapy.

The optimum research strategy considers not only what it is that we seek to understand, but also how much understanding we currently have. We have little systematic knowledge of the psycho-social therapies. Under these circumstances, we should explore: measure large numbers of variables as inexpensively as possible with a view to defining those areas where further expenditure of resources will pay off. The personality of the therapist is more easily measured than behavior; personality will tell us a good bit about what the therapist does; and understanding the personality of the therapist will give us understanding of the meaning of his or her behaviors.

In 1932, Harry Stack Sullivan wrote:

> The self mediates in most attempts at communicating information. Two people talking together *say* verbal combinations more or less entirely self-consciously. The two personalities integrated into the total situation within which this self-to-self conversation is occurring *communicate* more or less, as it were, *under cover* of the verbal interchange. A penumbra of personality-meaning is attached to the culturally standardized words. It is conveyed from one to another in the measure that there is empathic linkage from similarity of personality. (Sullivan, 1972, p. 330, emphasis in the original)

The logical consequence of Sullivan's position is that we *must* approach the psycho-social therapies through the personalities of the therapist and the patient, not simply because it is efficient to do this, but because it is the only valid approach. The outcome of therapy is determined, not by what is said and done, but by what is *meant* and *understood.* Sullivan's position is that meaning and understanding are a result of a complex subliminal interaction of personalities.

No attempt will be made here to appraise the positions that have been taken by various expert observers of the field. While the findings to be presented below shed light on some of the controversies (see chapter VI), we will need a great many studies of therapists' personalities and of therapeutic process before these issues can be resolved.

The Good Therapist vs. the Appropriate Therapist

How does the therapeutic style, as indicated by the personality of the therapist, affect the outcome of therapy? Is it that certain kinds of therapists are "good" in the sense that they are effective with most disorders under most conditions? Or do different disorders require different skills and different kinds of therapists? The first of these views has been called the "generalist" approach; certain therapies or therapists are seen as effective across the board. The second approach assumes that different disorders require different treatments; it will be called the "differential approach." (See, for example, Kiesler's grid model, 1971).

These two views have persisted in the literature for more than 40 years, each endorsed by various clinicians and researchers, who, generally speaking, appear not to know of the views of others. Until recent years, the literature has been quite disconnected. In considering these two views we are no longer asking whether personality is important, but rather how is it important.

Let us look first at the "generalist" approach. In 1929, Hans Prinzhorn wrote as follows:

> *The principal problem of psychotherapy is—the therapist.* Anyone who, speaking as an expert, maintains that personal gifts and aptitude play no part here, speaks against better knowledge, darkens counsel for the uninitiated, and encourages the irresponsible experimenting of those who, unsure of themselves, love nothing better than, with their analysing, to play the vampire to other minds. *On the contrary, there is in fact a specific psychotherapeutic gift which is exceedingly rare.* It comprises three things: 1. *Wide and sure knowledge of human beings,* no matter in what degree of consciousness— 2. *Easy* self-objectivizing (elimination of the private-ego)— 3. *Innate capacity for leadership (instinctive vital certainty of aim).* In addition, there are certain desirable qualities of character and intelligence, among them this rare one: *freedom from immature traits, from what is neurotic and infantile.* (1932, p. 330-331, emphasis in the original)

For Prinzhorn, there is one psychotherapy, not several, nor many. Yet he insists that *several* traits are involved. He would not go along with some current writings about "the therapist variable" which seem to assume a unitary trait. As he sees it, all good therapists have certain multiple traits in common.

In contrast with Prinzhorn's general assumptions about the good therapist, Carl Jung emphasized in 1934 how therapy must be differentiated for different kinds of patients:

> The psychotherapist should no longer labour under the delusion that treatment of neurosis demands nothing more than the knowledge of a technique, he should be absolutely clear in his own mind that psychological treatment of the sick is a *relationship* in which the doctor is involved quite as much as the patient .... All the more significance, therefore, falls to the general attitude of the doctor, who must know himself well enough not to destroy the peculiar values of the patient entrusted to his care, whatever these may be. If Alfred Adler were to request analytical treatment of his old teacher Freud, Freud would have to adjust himself to seeing Adler's peculiar psychology, even to the point of admitting its general right to exist; for there are innumerable people whose psychology is that of the son in need of prestige. If, on the other hand, I were to analyse Freud, I would be doing him a great and irreparable wrong if I failed to take elaborate account of the very real historical significance of the nursery, the importance of the entanglements of the family romance, the bitterness and gravity of early-acquired resentments, and their compensatory accompaniment by wish-fantasies which—unhappily—cannot be fulfilled .... (1964, p. 164, emphasis in the original)

Thus Jung agrees with Prinzhorn that the therapist's personality is critical but he emphasizes the differential aspects of the therapeutic relationship. Note that when Jung writes about Freud's personality, he frequently means "extrovert" and when he writes about Adler, he frequently means "introvert." Thus he is writing about therapists' adapting to types of patients and not just to individuals.

The remainder of this section is concerned with the generalist frame. Wilhelm Reich (1949) recognized that the therapist's individuality would affect the choice of patients, but he hoped that the training analysis would establish "the necessary plasticity of character" (1949, p. 149). Hence, the good therapist is flexible and can deal with a variety of patient types. This flexibility can be achieved through a technique.

Also in the generalist frame, Karl Menninger had the following to say:

> The psychiatrist as a person is more important than the psychiatrist as a technician or scientist. What he *is* has more effect upon his patients than anything he *does*. Because of the intimate relationship between patient and psychiatrist, the value system, standards, interest and ideals of the doctor become very important .... their effectiveness as therapists depends in large part upon the stature and breadth of their own personalities. (1952, p. 156, emphasis in the original)

Holt and Luborsky (1958), using supervisors' ratings as a criterion, obtained a description of the "good therapist." A similar design was used by Knupfer, Jackson, and Krieger (1959).

When researchers of the psycho-social therapies discover a characteristic of therapists or of therapeutic relationships which is related to effectiveness, it is not uncommon for them to assume that this is a general finding, not limited to the type of patients they studied. There is a tendency to view specific findings in a generalist framework.

Carl Rogers and his associates (Rogers et al. 1967) were among the first to show systematically that a particular kind of relationship might be helpful while its opposite might be damaging to patients. They worked with schizophrenics, but the variables of "warmth," "unconditional regard," and "accurate empathy" had already been conceived in a larger context, and were viewed as being characteristic of a "good" therapeutic relationship (Rogers, 1954). While the generality of these findings continues to be debated (Bergin and Suinn, 1975; Lambert and DeJulio, 1976), the powerful constructive influence of this research makes it a landmark along with that of Whitehorn and Betz (1954), to be discussed further below.

Bertram Karon and his associates, working also with schizophrenics, have developed a concept and a TAT measure called "pathogenesis." They have found that this variable is negatively associated with therapist effectiveness (Vandenbos and Karon, 1971). Karon (personal communication) feels that this is a general characteristic of ineffective therapists although he is quick to add that it has not been tested for therapy with other than schizophrenics.

Sol Garfield and Allen Bergin studied the effectiveness of therapists-in-training who were working with a wide variety of patients (no specific diagnostic group). These studies constitute a kind of test of the generalist hypothesis. Hardly any of their measures correlated with outcome (1971b). However, those therapists with elevated scores on certain MMPI scales had less success than the "healthier" ones (1971a). These findings have not been replicated, but they are certainly suggestive of Prinzhorn's concern that the therapist not be neurotic and immature.

Lambert, Bergin, and Collins (in press) use the phrase "psychonoxious therapist" as a general characteristic of therapists. Bergin and Suinn feel that the "differential effectiveness of techniques is not well established" (1975, p. 525). As we shall soon see, there are others who have concentrated their efforts in a differential frame. As usual, the resolution is not all-or-none. After a consideration of the differential hypothesis, an attempt will be made to synthesize it with the generalist approach.

The Differential Hypothesis

The earliest systematic use of the differential hypothesis is in the work of Whitehorn and Betz. The studies to be reported proceed from their work. They began their work in the early 1940's, their publications ranging through the late 1940's, 1950's and early 1960's. They set out to understand what kind of psychotherapy is effective with schizophrenics. They early recognized that those therapists who were effective with schizophrenics were not particularly effective with depressives. And from the beginning they were concerned with the personality of the therapist and his or her relationship with the patient. The therapist provides "an opportunity for the patient to have the experience of being unconditionally understood by another human being" (Betz, 1946, p. 252). "... the therapist's effectiveness comes to lie in the relationship the patient forms with him as a *person* ...." (Betz, 1947, p. 272, emphasis in the original).

Frieda Fromm-Reichmann (1950) had much to say about the personality of the therapist,

and she specifically endorsed the differential hypothesis: the "therapist should not expect to be capable of treating persons suffering from any type of personality disorder . . . he should learn what type of patients respond best to his personality" (1950, p. 40).

The Whitehorn and Betz research stimulated hundreds of empirical studies of the differential approach to the personality of the therapist; these will be treated further below. There were, however, some developments which were quite independent of this stream. In 1960 Fairweather et al., published their pioneering, systematic study of four therapeutic programs with three broad patient groups. This is one of the first studies to demonstrate how specific are the effects of specific therapies.

In 1964 Riemann questioned again the traditional psychoanalytic emphasis on technique (Cheney, 1966). Riemann's own patient typology—schizoid, depressive, hysteric, and compulsive—is extended to the analyst. In addition to describing each type of analyst's behavior, he attempts to match patients and analysts (Riemann, 1968). Generally speaking, he favors like pairs, except for the schizoid therapist whom he regards as problematic, possibly best with hysterics (which leaves the schizoid patient with no analyst at all).

Beutler (1976) has reviewed a number of evaluation studies, classifying them as to type of therapy and type of patients. For example, he suggests that behavioral treatments may be more effective in dealing with habit patterns while psychotherapy procedures may be more effective with adjustment problems. Differential processes are considered also by Goldstein and Stein (1976).

In recent years there has been a dramatic increase in the number of systematic empirical studies which assume the differential approach and the consequent desirability of matching clients and therapists. A variety of theoretical frameworks have been used. These studies are in two distinct areas: juvenile delinquency and mental health/counseling. The former will be discussed in chapter V. The latter have been carefully reviewed by Berzins (in press). For our purposes it will be useful to look at one of these studies for the light it sheds on the generalist *vs.* the differential approaches.

If we assume that there are a number of different dimensions involved in the "therapist variable," some of which are characteristic of all therapists who are effective, while others are specific to those therapists who are effective with specific disorders, the issue of general vs. differential becomes a kind of rough proportion to be determined over a fairly large number of empirical studies. *To what extent are there general abilities, traits, or skills which are needed by all therapists dealing with all kinds of human disorders or conversely to what extent are the skills that are needed specific to specific problems?*

The Indiana Matching Project (Berzins, 1974) does not answer this question across the board, but it is an example of an important approach to the question. Ten therapists in a university counseling service treated 751 patients whose characteristics were measured on dimensions such as "avoidance of others," "turning against the self," and so forth. For the therapists, a number of personality dimensions were measured. If a particular dimension shows as a "main effect," i.e., significant for all patients, it can be considered general. If, however, it shows an interaction with patient characteristics, i.e., effective with certain patients but not others, it is differential. In this particular study there are roughly *twice* as many differential factors as general ones, thus providing more support for the differential hypothesis than for the generalist.

Fairweather et al. (1960) found many, many treatment-by-diagnosis interactions and only a few simple treatment effects. Their study of inpatients in three broad diagnostic groups strongly supports the differential approach.

Whether or not general factors are found will probably depend on a variety of considerations. It is possible that inpatients are more differentiated than outpatients in their pathology, thus perhaps enhancing the importance of differential factors.

How experienced are the therapists? A group of therapists-in-training undoubtedly includes some who will not remain in clinical work. In such a group, among the general dimensions may be those that in effect are differentiating therapists from nontherapists, dimensions that would not show in a study of experienced therapists (see page 62).

In the Indiana study, the patients were outpatients, and the therapists were quite experienced. It might well be a typical middle-range study. If so, we might anticipate that differential factors are going to be far more frequent than general ones.

There is another approach which is much simpler (though not so informative). This is simply to ask whether therapists who are effective with one type of patient are likewise effective with other types. In the studies to be reported we will ask both kinds of questions. Again we shall find that the weight of evidence is for differential factors, not general ones.

The clinical literature is otherwise, that is, the weight of printers' ink is in general approaches. Most of the literature presents prescriptions for therapeutic behavior without specification of goals or situations. It either assumes or extols the virtues of a particular therapy; contraindications are presented more as exceptions than as the rule. This is not just the case literature. Even the research reports contain much discussion of the good therapist in the abstract.

Why So Few Studies?

Actually, there have been hundreds of studies of the personality of the therapist. But these studies have usually been small ones, more often than not, "labors of love" of a single investigator or small group of investigators with paltry financial resources. The big studies have been studies of "process," of technique. In view of the opinions quoted above of such competent clinicians as Jung, Menninger, Fromm-Reichmann, and Sullivan, one cannot help but wonder: Why so little attention to the personality of the therapist?

Not long before he died, John C. Whitehorn, himself a former president of the American Psychiatric Association and a pioneer of studies of therapist personality, told me that one of the leaders of American psychiatry had complained to him about the Whitehorn-Betz research. This was Whitehorn's way of telling me that the area is controversial. Unfortunately, we have no systematic studies of research strategies. We seem to prefer expert opinion. In the absence of research on research, we must speculate about why certain researches are unacceptable. Such speculation may stimulate studies and may increase our understanding of our blind spots.

Freud felt that these matters were so complex they defied codification (1958, p. 123). Many clinicians feel that each therapeutic encounter is distinctive; there can be no generalizations. Just why such a negative view should hold for personality, but not for technique, is not made clear.

Sometimes, when these issues are considered, there is an underlying pseudoscientism; studies of behavior are considered to be more scientific than studies of personality. Emphasis on technique is less shamanistic than is emphasis on the therapist.

Still another view is that emphasis on technique absolves the clinician of responsibility. So long as we are doing what "should" be done, we cannot be blamed for a bad outcome. It is difficult for persons not engaged in this enterprise to understand the feelings of responsibility—immense, lonely, responsibility—that clinicians feel.

We accumulate a mass of information—personal, confidential, private, much of it unverifiable—which, even under the best of circumstances is difficult to share very widely. And we must make judgements that we know will be received very carefully, sometimes even with homage. In this lonely responsibility, therapists have one support: technique.

This lonely responsibility is most awesome when we consider the possibility that we might damage our patients, a possibility so threatening it is usually denied. The most carefully documented instance of physician's denial that they themselves were at fault is in Colby's (1960) account of Semmelweiss. He writes it so beautifully, one feels that one cannot summarize, but should reproduce the entire seven pages (p. 44-50). But summarize we must: Semmelweiss had great difficulty convincing his associates that they were responsible for the deaths of the new mothers; that it was they who were carrying the germs from the cadaver room to the delivery room. If such an outcome rests on each of us as individuals, it is very threatening indeed.

But if the outcome *does* rest on each of us as individuals, we can never be rid of the threat

until we understand how we affect the outcome.

Does this mean that we are responsible for all of our failures? No. Most patients are imbedded in a web of interpersonal relationships of which the therapist is only a part, and usually not the most important part. What happens to the patient is a function of all the forces within and around him.

By the same token we cannot claim credit for all our successes. What we can claim credit for is a high batting average. There is little doubt that we can improve our batting average by choosing patients who fit us personally. Just how restrictive we should be is a question which is quite a few years beyond present knowledge. For researchers have not yet identified the relevant variables. When that has been done we must discover the extent to which therapists can adapt to the varying patient requirements. There is some evidence that some therapist variables are quite stable over long periods of time (see appendix 4). On the other hand, some observers are confident that therapists can adapt if they know what to do (e.g., Ricks, 1974, p. 294).

These personality issues will be treated more systematically in the next section, but readers not interested in psychological theory may skip it if they wish.

Theoretical Summary

The following is a statement of the theoretical position on which this research rests. While I believe the postion is consistent with available empirical findings, the available findings are clearly not adequate to affirm the theory.

Human behavior is viewed here as being "usually phenotypic," not usually genotypic. The distinction between phenotype and genotype, as used here, is not limited to genetics, but is a broad scientific distinction which can be illustrated by Aristotle's classification of "earthly" and "heavenly" bodies (Lewin, 1931). Rain is earthly while the rising fire is heavenly. This is a phenotypic description, it being quite beyond Aristotle to understand the genotype, "gravity," as the primary force explaining both phenomena.

Similarly it is asserted here that human behavior is "usually phenotypic" in the following senses:

1. Any single behavior is a resultant of more than one genotypic force.
2. A particular kind of behavior in different individuals may result from different genotypic forces.
3. The same genotypic force may result in different behaviors in different individuals.[1]

While we are concerned with explaining behavior, we can do so only if we understand the genotypic forces which shape it. So long as we look *only* at behavior we will never understand it any more than Aristotle could understand a waterfall or a fire.

At present, there is little understanding of the psycho-social therapies. What therapists learn in training is primarily a function of where they got their training, different centers being committed to one or another approach, there being few laws that relate types of therapy to goals, problems, situations, etc. What therapists tend to do in this "social" (therapeutic) situation is influenced somewhat by their training but is primarily an expression of their personalities.

Personality is defined as an organized set of predispositions to behave in certain ways. It is an energized structure that derives from various origins. "Temperament" frequently refers to physiological predispositions that derive from the genes and from environmental insults—diseases, injuries, and so forth. But much of personality consists of memory traces from past learning which result in certain characteristic reactions in certain situations. (The various origins of personality are not independent; for example, past learning can produce a psychosomatic reaction which changes temperament.) Behavior is viewed as a product of the personality and the situation. Newcomb (1950) emphasizes that personality is oriented both inward and outward.

[1]These assertions are "statistical." There may well be exceptions. For practical purposes, the behavior of a rat in a maze may be assumed to represent a genotypic force, learning, just as a steel ball on an inclined plane can represent gravity.

Can individuals adapt to various situations? If we knew what to tell therapists to do, could they follow our instructions or are they bound by their own predispositions? Probably, the therapist can follow instructions (technique) to a degree, but within limits. Probably, certain kinds of reactions are very deep and automatic as, for example, when a therapist of a particular origin reacts angrily to a slur on his or her origins. Other behaviors are probably under the control of the therapist if only it were known what behaviors are appropriate.

This issue is critical to the "generalist" vs. the "differential hypothesis." If Reich is correct in his hope that the training analysis establishes the necessary "plasticity of character," then the true generalist is differential and the issue disappears.

There is little doubt that therapeutic training, and particularly analysis, requires a therapist to examine his own reactions and to attempt to control them. On the other hand, therapeutic training can also tend to place certain restrictions on plasticity of character. What little evidence we have about therapists suggests that their behavior is still largely determined by their personalities.

Understanding personalities facilitates the interpretation of behaviors. Personality variables can shed light on misunderstandings that can occur between therapists and clients. This is not to say that personality studies should take precedence over studies of therapeutic process. Rather, the two should go hand in hand.

Since therapy is a social situation, it is expected that the social dimensions of personality—authoritarianism, nurturance, deference, etc.—are particularly fruitful areas for understanding the effects of therapy.

Diagnosis

In contrast to the generalist approach, which assumes that therapies are good or bad, the differential approach assumes that an intervention is good or bad depending upon whether it is *appropriate to the problem.* It therefore places considerable weight on being able to define problems. Diagnosis of the mental disorders is so difficult that some have despaired and thrown out the idea completely. The position here is that in a "bootstraps" science we make use of what we have, hoping always to learn and to improve. Certainly, there have been major improvements in diagnosis in recent years. For example, the unipolar-bipolar classification of depressions appears to be more precise, reliable, and productive than were some earlier classifications.

In clinical studies we frequently have difficulties achieving adequate samples. There is a tendency to include patients that might better have been excluded. Failure of diagnosticians to agree may arise if the patient is suffering from more than one disorder, or from a disorder which we have not yet adequately defined and described; in neither case does the patient belong in a study.

One aspect of diagnosis is receiving increasing attention: how fine or coarse are the criteria? In discussing the depressive disorders, Klerman (1973) argues for a pluralistic rather than a unitary approach, i.e., that there are a variety of affective disorders with differential responses to various treatments.

But this issue can be viewed quite differently. For some purposes, it may be useful to treat the depressive disorders as unitary, for comparison with the schizophrenias, for example. Indeed, we will consider the possibility that certain therapist behavior is required to deal with an even broader class: the functional psychoses. Diagnosis is here viewed as hierarchical: certain broad classes divided into subclasses, analogous to the families-genus-species classification in botany. Some therapeutic requirements may distinguish the broad classes, while other requirements, the subclasses. The issue then becomes the level of inquiry, and this may be determined by the availability of patients, therapists, and so forth.

At one extreme, the broadest of all classes—all mental and emotional disturbances—is the generalist approach described above. At the other extreme are those who assert that there are no classes; each patient is unique; each therapeutic relationship is unique; indeed, each encounter is unique. Between these two extremes are various levels of generality; at each level there are undoubtedly regularities across types of patients and therapists. A knowledge of these regularities should help us to improve

our averages, and avoid, in Prinzhorn's terms, "playing the vampire to other minds."

Is Psychotherapy Effective?

In a differential frame, this question makes no sense, as Sundberg and Tyler recognized in 1962: "... probably unanswerable. But many ... moves can be made toward obtaining sound, dependable information about what kind of therapeutic techniques, what kinds of therapists, and what kinds of treatment conditions have the most beneficial effects on specific kinds of patients" (1962, p. 435).

If we were to ask someone, even the man in the street, whether drugs were effective, he would probably respond with a question: "What's your problem, buddy? Headache, cancer, or just bored?" Long ago, medicine shed the unrealistic assumption: the good drug. Today, many social-psychological alchemists continue to present their *summa bona*, each of which will cure our troubles—troubles undefined.

In fact, so much of the literature of the psycho-social therapies is written in the generalist frame, it is hardly surprising that some should attempt to answer the general question: Is psychotherapy effective? One of the first was Eysenck (1952). Very recently, Donald T. Campbell (1976) proposed that we "test the effectiveness of our therapeutic alternatives, finding out which ones work better." Nowhere does he suggest the possibility of differential effects. How ubiquitous is the generalist type of thinking!

Note that Campbell asks "which ones work *better?*" Even in the generalist frame it is difficult to answer the absolute question: Is psychotherapy effective? There are two reasons. First, in most of the presently available studies, psychotherapy is ill defined. Second, being an absolute question, it implies what is probably impossible: a comparison with a sample of patients who are receiving no therapy at all (the so-called "control group").

With respect to the first problem, in most existing studies, the therapy (the independent variable) is meagerly described as "analytic," "behavioral," "Rogerian," etc.[2] We have seen from Lionells' work that these descriptions really tell us very little about what went on in therapy. For what went on was more a function of the personality of the therapist than of his training or his school identification. What was manipulated was very imprecise, and quite variable (Wexler, 1975). Under circumstances where the independent variable contains so much "error," we are unlikely to find any statistically significant outcome. Moreover, we are unlikely to find significant differences between types of therapy that are so poorly controlled. Luborsky, Singer, and Luborsky (1975) in their detailed evaluation and summary of existing studies come to the conclusion that there are few significant differences. Of course, null findings can result from any kind of error, in selection, measurement, and handling of data. But since we generally know a great deal more about the measurement of outcome variables and control variables than we know about the experimental variables—the psycho-social therapies—it is here that we must concentrate future efforts. *We must discover, define, and measure the salient dimensions of the psycho-social therapies.*

Let us turn now to the second and most troublesome problem with the question: Is psychotherapy effective? Inherent in this question is an absolute judgment; it implies a comparison between psychotherapy and no

[2]The exceptions are of interest and two will be considered here. In 1952 (more than two decades ago) David Grossman, acting as a lone investigator-clinician, attempted to *vary his own style* (interpretation vs. reflection) across experimental groups. Moreover, he proved that he had done it. It is unfortunate that his findings were confounded with other differences in his experimental groups, but it is to his credit that he had included measures that permitted the discovery of this confounding. His design is certainly replicable. (It is of interest that his article appears in the *Journal of Consulting Psychology* immediately following Eysenck's null findings. Just why Eysenck's findings should be so well known while Grossman's are not is an interesting question for the sociology of knowledge.) The important thing about Grossman's study is that when a therapist attempts to vary his style, although the personality of the therapist is not eliminated, it is at least controlled. Similarly, in the Fairweather et al. (1960) study mentioned above, two investigator-therapists served for all therapy groups, thus controlling for the personality of the therapist. Would that we also had measures of the personalities of Grossman, and of Fairweather et al.

therapy at all. It is possible to conceive of a sample of patients who have received, say, no drugs; but one cannot conceive of a sample of patients to whom nothing has been done psycho-socially. As soon as a problem or disorder is suggested, something is done, particularly in these days of "cassettes," "rap sessions," "bibliotherapy," "writing therapy," and so forth. If a priest visits a person regularly, is that person an adequate "control"? We will never be able to give *absolute* answers for the psycho-social therapies, nor should we. We can only compare various kinds of interventions. (see pages 87-88).

Is there nothing then that can be said? Many of the studies of the psycho-social therapies have shown a large increase in variance, i.e., some of the patients show dramatic improvement while others show no improvement or even a worsening. This finding is not so frequent for studies of drug therapies.[3]

[3]The increase in variance in the psycho-social therapies is disputed. Lambert, Bergin, and Collins (in press) review the issue with considerable vigor. They correctly conclude that the increase in variance does not constitute proof of anything but that it is a phenomenon that must be dealt with. May (1971) doubts the evidence. He is greatly concerned with an increase in the variance *relative to a control group*. If he cannot find a control group, or if the control group fails to meet his criteria, he throws the study out. Looking at May's own study, we find a large increase in variance for the milieu-therapy group (control group?), and for the psychotherapy-alone group (which appears really to be a psychotherapy-plus-milieu-therapy group). No such large increases are found for the drug-therapy groups. (Compare May and Tuma, 1964, p. 364, with May, 1968, p. 182). Some explanation is needed for the large increases in variance for the psycho-social therapies and the large differences in variance between the psycho-social therapies and the drug therapies.

An increase in variance can be found if, and only if: (1) the outcome measure in an interval or ratio scale, (2) applied "before" and "after," *and* (3) the averages do not crowd the extremes of the scale. Unfortunately, the studies to be reported below do not meet these conditions and therefore do not help us with this question of increase in variance.

In addition to the disagreement about the increase in variance, there is also a lack of consensus about the extent of deterioration among patients in psychotherapy. Compare Lambert, Bergin, and Collins (in press) with Gomes and Armstrong (1976). But the question of actual deterioration is not really at stake here. If the increase in variance is due simply to the fact that some patients failed to improve, the issue remains: Could it be that some patients are getting *considerably* less effective therapy than they should be getting?

While we cannot be certain of the meaning, it is useful to speculate. Bergin and his associates feel that the increase in variance results from the deterioration induced by the psychonoxious therapist. This is in the generalist frame. It is equally plausible to assume that the increase in variance is due to the mismatching of therapies and patients. In this speculation we simply assume (with Lionells) that whatever went on in the therapy, it was a lot of different things, some of which were appropriate and some were not so appropriate to the particular patients involved.

These speculations lay the groundwork for the distinction between an efficacious therapy and an effective one. Although the words "efficacious" and "effective" are frequently taken as synonyms, it is possible to distinguish between them. The former is a powerful therapy that may or may not be correctly applied, e.g., "good" therapy but not for some patients. An effective therapy is a powerful therapy correctly applied. Probably the best interpretation of currently available evidence is that psychotherapy and other psycho-social therapies are indeed very efficacious but they are currently only modestly effective. We should hope for more, if only we knew when to use which therapies.

We turn now to the pioneering efforts of Whitehorn and Betz to discover what kind of therapy is effective for schizophrenics.

Whitehorn and Betz

In 1941, John C. Whitehorn became Psychiatrist in Chief and Director of the Henry Phipps Clinic of The Johns Hopkins University Medical School. This was the chair of Adolf Meyer, the most prominent psychiatrist in America. Meyer's "psychobiology" explained the mental disorders (including schizophrenia) as "bad habits." He thus provided what is essentially a psychogenic explanation, and accordingly he emphasized psycho-social interventions. It was not that Meyer did not know his biology, or his residents, for that matter. It was simply, as one of the residents put it, "difficult to see where the biology came in." Personally responsible for many of Meyer's patients, was Barbara J. Betz, a research-

oriented psychiatric resident who had just completed a study of the somatology of schizophrenia (Betz, 1942). Thus, although there was interest in somatology, therapy was essentially long term and psycho-social at the time Whitehorn became director.

Whitehorn was known then as a biochemist. He had been brought up in a sod home in Nebraska, worked his way through school, and, for 17 years at McLean and Massachusetts General Hospitals developed methods of chemical assay which were the predecessors of those in use today.

In those days, when a biochemist needed blood, he drew it himself. Repeatedly, when he sat down to morning coffee, the psychiatrists would grumble about particular patients. From some of these patients he had drawn blood that very morning, and they had been completely cooperative with him. It puzzled him that he didn't have trouble with these difficult patients.

He searched for hyperglycemia in excited patients but was unable to find it even when the patient was chasing him with a chair. His friend, Walter B. Cannon, found this hard to believe and came to see for himself. Together, they watched a woman dancing on her bed, muttering about the "wisdom of the body," indicating she knew precisely who her important visitor was (though she was not a biologist). But she refused to acknowledge his presence. When Whitehorn inquired why this patient had improved so little after 8 months in the hospital, her psychiatrist responded, "Why don't you take the case?" He did; she was well in a week, and she stayed that way. "I had simply offered the patient the opportunity to establish contact." Thus was born his interest in the personality of the therapist.

Soon he found the younger staff members were sneaking out to the chemistry lab to talk over their patients with him. Patients, too, indicated their appreciation. Until then, he had resisted the title "psychotherapist." Now he found psychiatrists waiting on him to find out his secret. And so he left the laboratory to work in the clinic, where he was soon much in demand as a doctor's doctor.

Whitehorn was always observing, meticulously. This kind of exploratory observation is illustrated here because it is so lacking in the training of young scientists today (Stansfield, 1975). He noted that when certain doctors went on vacation there were dramatic changes in their patients. There was one doctor in particular; when he entered the room, schizophrenic patients "froze." In fact, Whitehorn came to use the presence of this doctor to diagnose schizophrenia.

Not only did he observe, he counted. He counted even his own interactions with others. At the age of 12 he had been shot in the eye with an air rifle, and one of his eyes changed color while the other did not. Sometimes patients would remark on this. He soon discovered that it was schizophrenic patients who would so remark. In fact, the count got to 25 schizophrenics in a row, unbroken. (The next person to comment was the director of a great medical center. So if *you* have eyes of different colors, you will still have to be careful in using this diagnostic test!)

It was when some of his "controls" "improved" that he began to appreciate the power of the interview. He devoted a great deal of attention to interviewing skills (Whitehorn, 1944, 1947). He was concerned with the role of communality in mental health (Whitehorn, 1954). He sought to establish a healthy social community on the wards.

There came a patient who was mute. When he was given sodium amytal "to get some material" the whole ward went silent. Whitehorn recognized this sign of negative group feelings. All of these things indicate his continuing concern for accurate diagnosis and effective treatment, and for the relation between diagnosis and treatment.

In 1938, Whitehorn became professor of psychiatry at Washington University in St. Louis. There he got acquainted with Carlyle Jacobsen who was doing studies with the Strong Vocational Interest Blank (SVIB). Whitehorn asked that it be mailed to a number of his friends.

Not long after he took over the Phipps Clinic at Hopkins, he asked Barbara Betz to study intensively a subgroup of the schizophrenias—the obsessive-compulsive ones—and their reactions to treatment. This clinical pilot study resulted in her 1946 and 1947 papers cited above, which contain many of the hypotheses to be tested in their later work.

They had already begun to administer, routinely, the Strong Vocational Interest Blank (SVIB) to all incoming residents.

In many respects the Phipps Clinic was an ideal place to conduct research into the effectiveness of the psycho-social therapies:

a. A small clinic, its social climate was relatively homogeneous.

b. Clinics at Hopkins tend to be relatively autonomous. Whitehorn could and did protect both researchers and clinicians from intrusions from outside the Clinic.

c. As an inpatient setting, it provides a greater opportunity to control the forces impinging upon patients. Another way of saying this is that therapy is the major source of influence on each patient, not the forces in the larger social environment. Forces which are not part of the therapeutic system are "noise." They make it more difficult to ascertain the effects of therapy.

d. The high staff-to-patient ratio means that the assigned doctor is not a person remote from the patient but rather one who is actively working with the patient.

e. A high staff-to-patient ratio is essential to the maintenance of good records.

The records of the Phipps Clinic included several systematic mesures (Whitehorn and Betz, 1954). (1) Since 1914, each day the nursing staff has marked a behavior chart indicating each patient's behaviors that day. Also recorded each day are the patient's (2) social behavior with other patients, and (3) participation in clinic activities. (4) At discharge, the disposition of the patient is noted—whether to the community or to another hospital. These records served as background material for a judgment of "improved" or "not improved" made by the clinic director, the chief resident, and the therapist. All these activities were routine, not part of a research protocol. No experimental manipulations were involved. No judgments of improvement were made while therapy was in progress. Only after discharge was this issue considered.

Whitehorn and Betz computed for each therapist the percent of schizophrenic patients improved. (They also computed the percent of depressive patients and of neurotic patients who improved. This will be explored in chapter IV.) The therapists were then divided into "A" doctors who had a high rate of improvement among their schizophrenic patients and "B" doctors with a low rate. Using this criterion, A vs. B, the Whitehorn-Betz studies proceeded in two parallel but essentially unrelated paths—one involving the records the therapist produced, and the other, responses to the items in the Strong Vocational Interest Blank (SVIB).

Considering first the analysis of the doctor's records, there were two of particular importance; the Personal Diagnostic Formulation and the Therapy and Progress in Personal Adjustment. On the basis of these records Whitehorn and Betz found that the A therapist:

> (1) . . . indicates in his personal diagnostic formulation some grasp of the personal meaning and motivation of the patient's behavior, going beyond mere clinical description and narrative biography;
>
> (2) . . . in his formulation of strategic goals in the treatment of a particular patient, selects personality oriented goals, i.e., aims at assisting the patient in definite modifications of personal adjustment patterns rather than the mere decrease of symptoms . . .;
>
> (3) . . . in his day-to-day tactics makes use of "active personal participation," rather than the patterns "passive permissive," "interpretation and instruction," or "practical care."
>
> There is a similarly high association between improved condition at the time of a patient's discharge and the development by the patient, while in treatment, of a trusting, confidential relationship to the therapist. (Whitehorn and Betz, 1954, p. 331).

This analysis is really more informative and useful than the A-B Scale derived from SVIB analysis to be reported below. It is notable that no one has attempted to replicate this analysis of records. In contrast within a year after the A-B Scale was published in 1960 an attempt was underway to replicate it and there have been hundreds of further efforts.

Whitehorn (1972) felt that the A-B Scale had "distracted attention from the primary issue" of the original A-B research: "the difference in modes of dealing with schizophrenic patients." Betz (1972) sees clearly why the scale has eclipsed the clinical data; it is "the easiest data to use." The records data are not easily replicable. Indeed the necessary documentation is not available in most clinical settings.

Perhaps if we can understand the scale, it will help us with the primary issue: the differing modes of treating patients.

The "A-B Scale"

Whitehorn and Betz conducted a number of analyses of the Strong Vocational Interest Blank. Of these, the one which has stimulated the most research is their item analysis which yielded 23 items that differentiate the A and B therapists (Whitehorn and Betz, 1960; Betz, 1967). These items are presented in table 1. Roughly half of them seem to have a common meaning: the "A" therapists tend to reject manual and mechanical occupations and activities. This half of the items dominates the scale. If there is a common meaning to the scale, it concerns the meaning of these items.

Actually, there are a number of "A-B Scales" (Kemp and Stephens, 1971). Some investigators have sought to lengthen the 23-item scale, others to shorten it, others to make it more homogeneous, and still others to revise it, optimize it, and adapt it to revisions of the SVIB. Most frequently used, though, is the 23-item scale or scales derived from it.

Table 1.—Strong Vocational Interest Blank† Items Which Differentiate A and B Therapists

Item No.	Item	Response		
17	Building Contractor	L	*I	*D
19	Carpenter	L	*I	*D
59	Marine engineer	L	I	*D
60	Mechanical engineer	L	I	*D
68	Photoengraver	L	I	*D
87	Ship officer	L	*I	*D
90	Specialty salesman	L	I	*D
94	Toolmaker	L	I	*D
121	Manual training	L	*I	*D
122	Mechanical drawing	L	*I	*D
151	Drilling in a [military] company	*L	*I	D
185	Making a radio set	L	I	*D
187	Adjusting a carburetor	L	*I	*D
189	Cabinet making	L	*I	*D
216	Entertaining others	L	*I	*D
218	Looking at shop windows	L	*I	*D
290	Interest public in a new machine through public addresses (rather than develop, design, etc. the new machine)	*L	*I	D
311	President of a society or club (rather than secretary, member, or committee chairman)	*L	I	D
356	Many women friends (rather than few women friends)	*L	I	D
367	Accept just criticism without getting sore	*Yes	?	No
368	Have mechanical ingenuity	Yes	?	*No
375	Can correct others without giving offense	*Yes	?	No
381	Follow up subordinates effectively	*Yes	*?	No

L—Like, I—Indifferent, D—Dislike.

*Signifies the characteristic response of therapists of whose patients a high proportion improved. The response without an asterisk is characteristic of therapists who had a low proportion improved.

†Form M (400 items).

I am not greatly concerned here with these various psychometric efforts. My concern is to throw light on the meaning of "A-B" by studying its correlates. However, one question is too important to be left to the psychometricians: should there be internal consistency, homogeneity, or common meaning among these items (Razin, 1971)? A small digression into the area of selection tests should shed some light on this question.

In developing their scale, Whitehorn and Betz were not interested in selecting therapists, but rather in characterizing them. However, the "A-B Scale" could be used to select therapists. Moreover, its construction is similar to that which is used in developing a test battery for selecting new employees.[4] For these reasons, it is useful to consider selection tests and what the outcome of such test constructions can be.

Almost any illustration will do, but a recent one is particularly interesting. Fox and Lefkowitz (1974) developed a test battery for entry-level employees in an electronics manufacturing firm. The details need not be reported here, but after correlating many tests with performance measures, they came up with three that were predictive: small-parts dexterity, tracing, and plotting. Note that even those tasks that are relatively *simple* are likely to require *several* abilities. Why then should we assume that the treatment of a schizophrenic, probably a very complex phenomenon, should be represented by a single homogeneous trait? Many researchers have been committed to making the "A-B Scale" unidimensional (homogeneous items). It is not uncommon to read about the "therapist variable" as though it were a single, unitary phenomenon. However, Seidman et al. (1974) and Dublin et al. (1969) have recently used multidimensional analyses with some success.

In addition to multidimensionality, there is a second set of findings for the electronics employees. The tests so developed turned out to be predictive for blacks but not for whites even though they were originally validated on both groups. The authors offer a number of possible explanations but are not themselves very impressed with any of them. Here again the test literature illustrates the difficulty of generalization and the need for repeated validation on various populations.

Because the determinants of therapeutic success are probably multidimensional, "A-B" should never have been called a "scale." The word conjures up psychometric qualities which these items do not have, and *should* not have. By the nature of the task they perform they should not be homogeneous or internally consistent. Rather various items should represent various traits significant in the treatment of schizophrenia.

Hereafter, the phrase "A-B predictor" will stand for any collection of items correlated with therapist success but which collectively do not have scalar properties. Most of the collections of items presented are A-B predictors, not A-B scales.

If, *within* a given A-B predictor, certain items can be shown to be appropriately correlated with each other, this subset of items will be called an A-B cluster. As compared with A-B predictors, A-B clusters are useful because there is greater likelihood of discovering the deeper personality significance of a cluster than a multidimensional predictor. On the other hand, predictors are useful because they indicate combinations of traits that may be required for a certain type of patient. An A-B cluster will be called a scale if we can assign a meaning ("construct") to it.

There will be one exception to this terminology. "A-B Scale" (in quotation marks) will refer to the existing literature of the 23-item predictor or variants of this predictor which have been used in other studies (table 1).

Accordingly, the original 23-item "A-B Scale" is really a 23-item A-B predictor. Within this *predictor* there is one cluster consisting of items relating to manual/mechanical occupations or activities. The A's reject these items. To know that a therapist who is effective with schizophrenics is one who rejects manual activities does not give us very much understanding of psychotherapy. When one thinks about being a carpenter, one might think about the

[4]There is an important difference in the use of personality tests in research and in selection. When used in selection, and the subject knows this, there is a premium on knowing the "right answers" and in distorting one's answer toward the right answer. When used in research, this problem is not so serious. See pages 108-109 and 151.

pay, or the supervision, or the intrinsic satisfactions, or the weather, or any number of other things. In fact, different substrates of a population will think of different things. Thus this central cluster of the original A-B predictor probably has a *variety* of meanings for the deeper personality structure of different groups of therapists. I will refer to a cluster consisting of such items as *multisemantic.*

In contrast, a *manifest scale* is one where most of the items seem to have a common meaning *for personality.* Such scales are probably more constant in their meaning across groups of therapists, and they are more interpretable in a therapeutic setting. For example, we will find a second cluster of items that seem to have in common certain aspects of social expression.

In summary, then, it was assumed in the present studies that the "A-B Scale" is not a scale. It is a multidimensional, multisemantic predictor. Unraveling its multiple meanings is an interesting scientific detective story.

Continuing the analogy, "the plot thickens." Almost immediately after the publication of the "A-B Scale," McNair, Callahan, and Lorr (1962) attempted to replicate the Whitehorn-Betz findings. They found indeed that the "scale" worked, but in the reverse direction. The 40 therapists and 40 patients were in outpatient clinics of the Veterans Administration.[5]

Since many V.A. outpatients are neurotic, it was immediately inferred that the A's were more effective with schizophrenics, while the B's were more effective with neurotics. In fact, as is the case in *too* many clinical studies, the diagnosis of the patients is unknown. McNair reports that 82 percent of the patients in V.A. clinics at that time were neurotics; the remaining 18 percent were personality disorders (personal communication). It is possible that the personality disorders are responsible for the negative relationship observed between the "A-B Scale" and therapist's success. This would be the case if there were a strong negative relationship among, say, six or eight personality disorders and no relationship at all for the neurotics.

If the A's are more effective with schizophrenics while the B's are more effective with outpatients, then the "A-B Scale" is the ultimate in differential treatment. It goes beyond the notion that the treatment must fit the disorder. It says that certain treatment which is beneficial in the case of one disorder is decidedly not beneficial for another disorder. Small wonder that Carson (1967) called it a "critical variable."

In any event, this intriguing touchstone of differential treatment soon attracted a number of younger workers who, quite suprisingly as Betz (1972) notes, made it work in pseudotherapy—laboratory analogues—quite different from the Phipps long-term psychotherapy with real inpatient schizophrenics. At the same time, several investigators (May, 1968; Bowden et al., 1972) tried the "scale" with schizophrenic inpatients only to come up with null findings.

And so the plot thickens still further:

1. Being empirically based, the "scale" has no apparent meaning for psychotherapy. The meanings attached to it are almost as numerous as the investigators who have used it.
2. The "scale" fails to "work" in some clinical settings where it would be expected to work.
3. The "scale" "works" in settings where it might well be presumed inappropriate, e.g., therapy analogues using college students as pseudotherapists reacting to taped material.

It would be a mistake here to try to review the several hundred studies that have been done with this "scale." Several reviews are available (Razin, 1971; Razin, in press; Chartier, 1971).

As an example of the problems, and the frustrations, we will consider one study. Draper (1967) attempted to replicate the Whitehorn-Betz research. Instead of trying to work with records, he had these young, rotating, medical interns rated by their psychiatric supervisors on the dimensions that Whitehorn and Betz had extracted from the records (page 16 above). His findings tended to confirm

[5] If this were a real detective story, I would allow the reader to form his hunch that this reversal was due to the scale's multiple meanings. While some of the reversals to be discussed appear to be due to its multiple meanings, this one appears not to be.

the Whitehorn-Betz findings. However, his data from the Strong Vocational Interest Blank showed relationships reversed from those of Whitehorn and Betz. Paradoxical as these findings are, they are exactly what would be expected from the findings to be presented below.

It has been suggested that the "A-B Scale" is a waste of time since it was developed chiefly in a period before the introduction of the neuroleptic drugs. The impact of drug treatment upon psychotherapy is an important issue in this research. However, it is probably unreasonable to assume that all schizophrenics are going to be drugged heavily and regularly, now and forever. We know that therapists differ in their use of drugs. Some prefer to make minimal use while others feel that dosages should be "adequate."

If it were true that all schizophrenics are to be drugged, it would serve to magnify the importance of these data. Researchers everywhere agree that the psychoactive drugs *mask* the disorders, and make it difficult to know what is disorder and what is drug effect. Many researchers go to great pains to collect data from patients who are at least temporarily free of drugs. Viewed in this light, the Phipps Clinic data become a vast resource that would be most difficult to reproduce.

A great advance was made by Whitehorn and Betz when they sought systematic observations. Many thoughtful clinicians had concerned themselves with the personality of the therapist as a critical variable, but it was Whitehorn and Betz who collected systematic observations on more than a thousand patients and several score of therapists.

The state of psychotherapeutics in the early 1940's was not unlike the state of aeronautics in the early 1900's. Wilbur and Orville Wright did not have any college education, but they did pursue some systematic observations. They set up a wind tunnel where they could observe the performance of airfoils. What they learned was quite contrary to what was then "known," and it was disquieting to the academic experts of their day. *Moreover, their way of learning, systematic empirical observation, remained for decades the only satisfactory approach to the problem.* It would be many decades before accurate theoretical predictions could be made about air foils.

While the task of the Wright brothers was not an easy one, still it was possible for them to prove dramatically and conclusively the superiority of their knowledge over the prevalent knowledge—they flew an airplane. Would that it were as easy to demonstrate the worth of the findings of Whitehorn and Betz!

Chapter III

The First Study—A Pilot Investigation

My first efforts to find the correlates of the A-B predictor were as by-products of another investigation. This other study does not concern us except to say that it was a study of pictures drawn by mental patients. I became interested in the way "raters" reacted to these pictures (Dent and Kwiatkowska, 1970). To measure the raters' personalities I put together a questionnaire derived largely from Irvin L. Child's works in aesthetics. The resulting 12 personality dimensions were not only useful in that they were related to "aesthetic judgment," many of them could also be expected to define the way different people react to different kinds of psychopathology.

It would be of interest to understand how A and B therapists react to various kinds of psychopathology. Accordingly, the questionnaire included 18 of the 23 A-B items. Of the 13 items in the main cluster, rejection of manual and mechanical activities, I included 8, and excluded the remaining 5 as redundant (table 1, page 17, Nos. 59, 68, 87, 121, and 189).

The purposes of including the A-B items in this questionnaire were frankly exploratory. Quite independently of reactions to pictures, I sought the correlates of the main cluster, and I hoped to tease out some other clusters from among the remaining 10 items. The assumptions were:

1. That the A-B predictor is multidimensional; i.e., it contains more than one empirical cluster.
2. That the dimensions might well represent various aspects of dealing with schizophrenics.
3. That the main dimension, rejection of manual and mechanical interests, could not possibly mean the same thing to women as it means to men. Since the Phipps residents were predominantly male, only males were to be used in analysis.
4. That "young male adults" might have personalities different from those of psychiatric residents at the Phipps Clinic.

This first Personal Tendencies Questionnaire (PTQ) contained in addition to the 18 A-B items, items from 12 personality scales. Examples of these items can be seen in tables 3, 4, and 5.

The respondents were (1) 26 male normal volunteers living in the Clinical Center at the National Institutes of Health and (2) 34 males in a class in psychology at a community college. I wondered how these respondents might compare with the psychiatric residents at the Phipps Clinic. One would expect mental health professionals to have an interest in how other people feel. Certainly, those who are not interested in the feelings of others are not likely to become psychotherapists. There were eight items in the questionnaire which might indicate such an interest, and these eight items were used to construct a scale called "Empathic Interest." This scale became the key to the analysis.

If we look at the 60 respondents as a group, there are no significant correlates of the A-B predictor. However, when we look separately at those with high empathic interest and those with low empathic interest, some interesting possibilities emerge. These results are presented in tables 2 and 3, and can be summarized as follows:

1. In table 3, there are hardly any correlates of the A-B Predictor among those with low empathic interest, but somewhat more among those with high empathic interest. This is what we would expect if the subjects with high empathic interest were more like the original validation group (Phipps residents) than those with low empathic interest.

Table 2.—Intercorrelation of Selected Scales

(Pearsonian r's)

	31 College Men With High Emphatic Interest		29 College Men With Low Emphatic Interest	
	8 A-B items representing rejection of mechanical interests	9-item F Scale	8 A-B items representing rejection of mechanical interests	9-item F Scale
A-B predictor (18 items)	.90	—.39	.86	.05
8 A-B items representing rejection of mechanical interests		—.47		—.08

— Significant at .05 level (two-tail).
= Significant at .01 level (two-tail).

2. In table 2, for those with high empathic interest, one of the 12 personality scales is correlated with the A-B predictor. There is a negative correlation with the F Scale, Authoritarianism, which is an indirect measure of ethnocentrism (Adorno et al., 1950).
3. The items representing rejection of manual activities dominate the predictor in both halves of the sample. In the high-empathic-interest group, the rejection of manual activities explains all of the correlation of the predictor with the F Scale (table 2).
4. In table 3, there is a tendency for the item correlations to reverse as we pass from high-empathic-interest subjects to low. (In the next chapter, this tendency of the "A-B Scale" to reverse its meaning will be called "the semantic reversal.")

Considerable attention was given to the 10 A-B items not part of the main cluster. Six of the 10 items showed a modest amount of internal consistency. The average intercorrelation was .22. These items include (1) liking to be president, (2) drilling in a [military] company, and (3) interesting the public through public addresses. The A's also feel that they can (4) accept just criticism without getting sore, (5) correct others without giving offense, and (6) followup subordinates effectively. These items seem to reflect a certain active initiative in social affairs. They were scored as a scale for item analysis.

Tables 4 and 5 present item analyses for eight items in the main scale, rejection of manual and mechanical activities, and the six items in the active social area. The items correlated with the "reject manual" scale suggest nonauthoritarianism, tolerance for complexity, regression, and so forth. The items correlated with the "active social" scale also include one from tolerance for complexity, but the sign of the correlation is reversed. In fact the items in table 5 reveal an active structuring, though of course not a complete reversal of the tolerance in table 4. Thus it appears that the A-B predictor contains at least two scales that are very different from each other.

The findings serve as background for the study to be reported in the next chapter. The findings thus become assumptions which could be elaborated in *clinical* terms as follows:

1. The A-B predictor is limited in application to settings which are primarily psycho-social in their treatment orientation. It will not "work" in somatically oriented settings, and indeed might even reverse its meaning in such settings.
2. Authoritarianism stands for "Custodialism" (Gilbert and Levinson, 1956) and negative attitudes generally toward serious mental disorder. This might well be associated with a particular thera-

Table 3.—Correlation of the A-B Predictor (18 items) With Items in Other Personality Scales

Scale(s) and Item	Scale Answer	31 Men With High Empathic Interest			29 Men With Low Empathic Interest		
		"A" Ansr.	Gamma	p	"A" Ansr.	Gamma	p
F Scale and the Tolerance for Complexity Scale:							
People fall very naturally into distinct classes, such as the strong and the weak.	F	F	.64	.02			
Unquestioning loyalty is the first requirement of good citizenship.	F	F	.60	.01			
F Scale and the Independence of Judgement Scale:							
What youth needs most is strict discipline, rugged determination, and the will to work and fight for family and country.	F	F	.48	.03			
The Tolerance of Complexity Scale:							
The man who truly loves a woman must regard her as the best in the world in every important respect.	F	F	.48	.02	T	.34	.11
At the end of a textbook chapter, a good summary is more valuable than a set of thought-provoking questions.	F	T	.32	.10	F	.31	.14
The Independence of Judgement Scale:							
It is easy for me to take orders and do what I am told.	F	F	.48	.01			
The happy person tends always to be poised, courteous, outgoing, and emotionally controlled.	F	F	.43	.04			
The best theory is the one that has the best practical applications.	F				T	.62	.01
Some of my friends think that my ideas are impractical if not a bit wild.	T				F	.46	.02
The Regression in the Service of the Ego Scale:							
I can detect in myself no strong antisocial impulses of the sort which, under certain circumstances, might lead to crime.	F	F	.64	001	T	.32	.15
In listening to a lecture, I often am amused by thoughts of double meanings or possible puns which the lecturer probably doesn't intend.	T	F	.69	.04			
The Tolerance of Ambivalence Scale:							
A beautiful sunset would be still more beautiful if it lasted longer, and were not a tragic reminder of how transitory everything good is.	F	F	.64	.02			

Gamma is not recorded unless p value is .15 or less.

Table 4.—Correlation of the Score for Eight A-B Items Which Imply Rejection of Mechanical Interests With Items in Other Personality Scales Among 31 College Men With High Empathic Interest

Scale and Item With Which the "Rejection" Score Was Correlated	Scale An-swer	"A" An-swer	Gam-ma	p
F Scale and the Tolerance for Complexity Scale:				
Unquestioning loyalty is the first requirement of good citizenship.	F	F	.79	.0006
People fall very naturally into distinct classes, such as the strong and the weak.	F	F	.77	.004
F Scale and the Independence of Judgement Scale:				
What youth needs most is strict discipline, rugged determination, and the will to work and fight for family and country.	F	F	.62	.003
The Independence of Judgement Scale:				
The happy person tends always to be poised, courteous, outgoing and emotionally controlled.	F	F	.51	.02
It is easy for me to take orders and do what I am told.	F	F	.45	.02
Science should have as much to say about moral values as religion does.	T	F	.42	.04
The Regression in the Service of the Ego Scale:				
I can detect in myself no strong antisocial impulses of the sort which, under certain circumstances, might lead to crime.	F	F	.54	.009
I enjoy letting my thoughts wander aimlessly, and find myself thinking about all sorts of unusual and unrelated things.	T	T	.57	.03
The Tolerance of the Unrealistic Experience Scale:				
Optical illusions and other experiences that put you in conflict about what is real and what isn't are on the whole quite enjoyable.	T	T	.45	.05
The Tolerance of Ambivalence Scale:				
A beautiful sunset would be still more beautiful if it lasted longer, and were not a tragic reminder of how transitory everything good is.	F	F	.56	.05
Need for Order:				
I prefer that my hours of eating and sleeping be regular, not changing from day to day. (Included for comparison with table 5)	T	F	.40	.18

peutic style, say, for example, efforts to decrease symptoms as opposed to trying to understand dynamics. See item (2) on page 16.

3. Some sort of active social initiative may be involved, perhaps reflecting the "participation" discussed by Whitehorn and Betz. See item (3) on page 16.

While the general outlines of these assumptions will be confirmed below, some of the specifics will not be confirmed. We shall find that empathic interest does not necessarily distinguish the psycho-social from the somatic orientation, and that authoritarianism is difficult to measure among mental health professionals. Few mental health professionals endorse any of the items in the F Scale. But mental health professionals do vary on dimensions which are usually related to the F Scale, dimensions which probably are correlated with their reactions to types of pathology.

Table 5.—Correlation of the Score for Six "Other" A-B Items With Items in Other Personality Scales Among 31 College Men With High Empathic Interest

Scale and Item With Which the "Other" Score Was Correlated	Scale Answer	"A" Answer	Gamma	p
The Tolerance for Complexity Scale:				
No one can be sure of conquering his difficulties; willpower is not enough.	T	F	.48	.02
The Regression in the Service of the Ego Scale:				
When I am alone or performing a task requiring no mental work, I enjoy doing things like rhyming words, discovering puns, and making up little songs.	T	T	.53	.01
Need for Order:				
I prefer that my hours of eating and sleeping be regular, not changing from day to day. (Cf. table 4)	T	T	.66	.02
Preference for Decision Making:				
I prefer a job that requires making difficult decisions rather than following instructions carefully.	T	T	.44	.04
Preference for Work:				
I prefer to climb a flight of stairs rather than taking an elevator up.	T	T	.44	.05

Chapter IV

The Second Study—Hospitalized Schizophrenics, Depressives, and Neurotics

The pilot investigation was sufficiently intriguing that I decided to design a larger correlational study of mental health professionals and other relevant groups. Actually, much of this second study was not "by design." Rather, as is the case so often in exploratory studies, the research opportunities unfolded as the study proceeded. To understand the limitations of this study, it is necessary to describe its original design.

Study Design

The study was oriented to the schizophrenias. (See appendix 2 which was written about the time that this study was designed.) The fact that the "A-B Scale" might have implications for the treatment of the neuroses was given some consideration, but the personality scales included were chosen primarily because of their possible relevance for treating schizophrenics.

I hoped to have the opportunity to reanalyze the original Phipps Clinic data, using more powerful and more accurate statistical techniques which might yield a larger and better set of A-B items than the original 23. This reanalysis was made possible by Dr. Joseph H. Stephens who has preserved the data, checked and augumented it, adding more patients and more doctors, and assembling much more information about the patients and the doctors (e.g., drug therapy, process/nonprocess, etc.). The reanalyses presented below continued after the revised Personal Tendencies Questionnaire (PTQ) was put into the field, because more and more Phipps data became available, permitting more accurate analyses of the Strong Vocational Interest Blank (SVIB). Thus the A-B items included in the PTQ are not optimal but are nevertheless useful for our purposes here.

This revised PTQ, including a larger number of personality scales and revised A-B scales, was designed for administration to a variety of groups representing various degrees and kinds of mental health specialization. I hoped that the psychiatrists who participated in the original Whitehorn-Betz studies would be among these groups.

Design of the Personal Tendencies Questionnaire (PTQ)

In order to reach relevant groups the questionnaire had to be short, short enough that the average person could answer it in half an hour. This was achieved, but only by the most careful selection of content. Not only were personality scales selected with care, each item was required to justify itself. For example, if an item were such that most psychotherapists answer it in the same way, it was excluded, since it contributes little to measurement. (This controversial procedure is discussed at length in appendix 1.) The PTQ is presented in appendix 2.

The personality scales included are presented in table 6 and the items are presented in appendix 4. As presented, they reflect considerable analysis of internal consistency that was conducted after the data had been collected. The appendix tables indicate how each item was selected, and if not used as it was originally selected, why it was not so used.

There are doubtless many other facets of the treatment of mental disorders that could be incorporated into such a questionnaire. Clearly, we can get from a questionnaire only what has been built into it.

Table 6.—Scales Included in the Revised Personal Tendencies Questionnaire

	Table No.	No. of Items	Coef. Alpha *	Source
Need for Closure	31	5	.49	Child "Tolerance for Complexity"
Regression in the Service of the Ego	32	22	.77	David Singer
Empathic Interest	33	7	.24	Various sources
Work Ethic	34	5	.46	Mirels and Garrett "Protestant Ethic"
Need for Order	35	5	.39	Various
Tolerance of the Unrealistic Experience	36	7	.56	Child "Tolerance of the Unrealistic Experience"
Tolerance of Ambivalance	37	7	.25	Child "Tolerance of Ambivalence"
Preference for Decision Making	38	4	.32	Child "Preference for Decision Making"
High Personal Standards	39	1	—	Written for the PTQ
Remorse	40	7	.39	Child, "Superego"
Antidemocratic	41	16	.71	Adorno, et al. "F Scale" plus three others
Individualism	42	9	.51	Barron "Independence of Judgement"
Deference Anxiety	43	7	.53	Child "Deference Anxiety"
Nurturance Anxiety	44	3	.38	Child "Nurturance Anxiety"
Science and Moral Values	45	1	—	Barron "Independence of Judgement"
Preference for Intellectual Challenge	46	3	.50	Child "Preference for Intellectual Challenge"
Extroversion	47	7	.74	Child "Sociability"
Fervor	48	4	.55	Rokeach "Dogmatism"
Life Satisfaction	49	5	.59	Written for the PTQ.
Work Activity	50	3	.54	Child "Preference for Work"
Various A-B Predictors and Scales	10-13,17	—	—	Strong Vocational Interest Blank (SVIB)

*Coefficient Alpha is computed for 133 psychiatrists, psychiatric residents, and clinical psychologists in training.

The Respondents

Since it is assumed that the A-B predictor has different meanings for different groups, it is important to be able to describe the groups. A great deal of attention was given to response rates and to increasing the response rates in order to be able to define as precisely as possible the nature of the groups that were studied.

It was assumed that, somehow, the psychosocial vs. the somatic orientations are involved in understanding the A-B predictor. But it was not understood how difficult a task it is to get an empirical handle on these orientations.

The groups of respondents are shown in table 7. It was assumed that the first group, the original Phipps Clinic psychiatrists, would have a psycho-social orientation since that was the orientation of the Clinic when they were there. It turns out that they now vary in their orientation.

In order to get a sample of somatically oriented psychiatrists, I turned to another survey being conducted at the time: The Followup Study of Former NIMH Trainees and Fellows. In that questionnaire there were some questions about types of therapy utilized. A number of male psychiatrists were selected (in

Table 7.—Male Respondents to the Revised Personal Tendencies Questionnaire

Group	No.	Response	Description
Psychiatrists	26	45%	The orginal Phipps Clinic psychiatric residents, excluding those not now in clinical work. Collected by mail.
Psychiatrists	27	56%	Matched to above on age, but selected to be more somatically oriented. Collected by mail.
Psychiatric residents	36	?	Collected by training directors.
Subtotal	89		
Clinical psychologists in training	22	?	Collected by training directors.
Counselors, house parents	51	91%	Loysville (Pa.) Youth Development Center. Collected by George A. Furse while living at the Center.
Normal volunteers	22	76%	College students living at the NIH Clinical Center.

In addition, there were some female respondents: 5 psychiatrists, 17 clinical psychologists in training, and 21 normal volunteers.

In the text, "133 mental health professionals" includes the following groups: 89 male psychiatrists or residents, 5 female psychiatrists, 22 male and 17 female psychologists in training.

Questionnaires were collected during the period June-December 1973 except for the counselors' and house parents' which were collected in July 1974.

the same age range as the former Phipps residents) who indicated that they used chemotherapy at least as much as any other kind of therapy. This indicator also turns out to be inadequate to the purpose.

The third and fourth groups are mental health trainees. Since A-B studies have been done on psychiatric residents and clinical psychologists in training, it seemed desirable to collect some questionnaires from these groups. For this purpose, some clinical training directors consented to give the questionnaire to their trainees. The actual response rates for these groups is probably quite variable, very high for some groups and low for others.

The next group in table 7 are the counselors and house parents at the Loysville (Pa.) Youth Development Center. Most of the eligible staff were persuaded to participate. For this group, we have not only the PTQ, but a variety of other data as well, including their success rates. Together these data constitute a pilot study developing methods for applying therapist personality research to a milieu setting. This self-contained pilot study of therapeutic influence is reported separately in chapter V.

The last group is one of "normal volunteers" at the N.I.H. Clinical Center, college students who serve as live-in "controls" for medical experiments. They were cooperative and consientious participants in this research and were included because college students have been used as "pseudotherapists" in a large number of analogue studies, some of which have tended to confirm the original Whitehorn-Betz findings.

The characteristics of the normal volunteers changed dramatically between the time that the pilot investigation was done (chapter III above) and the time this study was undertaken. In the earlier period, they were typically freshman and sophomores who had not yet chosen a field of specialization. Their intentions were about as varied as for any cross section of college students. By the time the second study was begun, normal volunteers had become typically juniors and seniors, many of whom were oriented toward the helping professions. In fact, nine of these volunteers were psychology majors, and nine were premedical students. Thus, these normal volunteers are not at all comparable to those presented in the last chapter.

Female Therapists

While most studies of the psycho-social therapies have been conducted on male therapists, there are probably more females than males engaged in the psycho-social therapies.

The A-B predictor comes from a version of the Strong Vocational Interest Blank (SVIB) which was designed for males. Moreover, the content of the predictor is male oriented. Even in these liberated days, it is unlikely that "not wanting to be a machinist" means the same thing to males and females. Moreover, many of the personality scales in the PTQ were validated on male populations and this shows in the wording of certain questions.

It was my hope that if we understood the "A-B Scale" we could generalize it to females. Some females were included in the study, and some efforts to specify the limits of generalization are presented in appendix 7.

But I cannot feel sanguine about these efforts. It is possible that the sex of the therapist itself changes the therapeutic relationship. What is needed is a complete study comparing women who are variously successful with different types of patients. In the meantime, my apologies for concentration on the males in this study. Until that larger study is done, we can hardly feel confident about the meaning of the various A-B predictors and clusters for female therapists.

Psycho-Social vs. Somatic Orientations

As was indicated in chapter III, the pilot investigation suggested the possibility that the A-B predictor has different meanings for different groups, and that the meaning might well be different for therapists with a somatic orientation from those with a psycho-social orientation. This might, for example, explain the null findings in certain hospitals. Accordingly, the orientation of the therapist was to be a major control in the larger study.

Actually, there are three dimensions: the psychological, the social, and the somatic (Strauss et al., 1964). Among psychiatrists and psychologists, the psychological and the social tend to be negatively correlated with somatic, and there is therefore some justification for combining the three into a single dimension from psycho-social to somatic. For discussion purposes, the dimension is treated as a dichotomy, but we must keep in mind that any particular group can fall anywhere on the dimension.

Truly somatically oriented psychiatrists are a small minority, but they carry large patient loads, and are therefore an important minority. They are not particularly interested in interview studies and questionnaires. Henry, Sims, and Spray (1971) abandoned their objective of studying such doctors because only 29 percent of them consented to be interviewed (personal communication).

I recognized the problems of trying to deal with these varying orientations. For several reasons, I chose not to attempt to measure orientations directly by including appropriate questions in the PTQ. (1) The PTQ was already too long. (2) It is a general questionnaire free of specific controversial clinical issues. (3) Introducing such issues might color responses to general questions, and it might damage response rates

As an indirect measure, "empathic interest" was expected to be higher among the Phipps Clinic graduates (assumed to be psycho-social) than for the second group who had indicated in the Follow-up Study that they used chemotherapy at least as much as any other type of therapy. It was disappointment and consternation when I discovered that this "somatic" group reported empathic interest as high as that reported by the Phipps graduates.

At the same time, I was trying to compare respondents and nonrespondents. There were no differences between respondents and nonrespondents in background characteristics, or even, for the Phipps group, in A-B scores from the SVIB's they had taken years before. Specifically there was no difference between respondents and nonrespondents in reporting the use of chemotherapy in the Follow-up Study. This seemed odd in view of experiences other researchers had had.

If, however, the psychiatrists (the first two groups in table 7 combined) are sorted into two groups, those whose primary affilitation was with a medical school or hospital, and those in private practices, clinics, or CMHC's there was a not-quite-significant difference in response rates: 45 percent to 58 percent. This difference was puzzling; most of the first group are in medical schools, while most of the latter are in private practice. A psychiatrist in a medical school probably feels a greater need to respond to an NIMH survey than does a psychiatrist in private practice. Thus, the "real" difference might be larger than that observed.

Finally, the Follow-up Study does include a question about interest in psychopharmacology. The responses to this question also did not correlate with reported use of chemotherapy. In fact, among the four variables — hospital/nonhospital, empathic interest, chemotherapy, and interest in psychopharmacology — there are six possible correlations, but only one of them is significant. Hospital/nonhospital is correlated with interest in psychopharmacology, .32 (gamma significant at .05, two-tail).

It was probably naive to think that empathic interest would correlate with orientation. But why is chemotherapy so little correlated with others? It is possible that chemotherapy is more a function of institutional requirements than of the doctor's preferences. We shall find other support for such an interpretation.

The reader will forgive me for jumping ahead in time to a portion of the reanalysis of the Phipps data. The material logically belongs here, although it did not become available until long after the PTQ's had been collected.

In January 1975 Joseph H. Stephens made available some data for the former Phipps residents showing the proportion of schizophrenic patients for whom drugs were prescribed, as well as other characteristics of patients (ECT, sex, and so forth). These data made a number of new analyses possible. For present purposes we can ask the question: Does the doctor's prescribing drugs relate to his later returning the PTQ?

There are some qualifications to the answer. The Phipps Clinic residents were a very unusual group. For example, nearly all of the later residents are now associated with

Table 8.—PTQ Response Rates for Former Phipps Clinic Residents

Whether Resident Prescribed Drugs for Schizophrenics	% Returning the PTQ
Prescribed no drugs	60%
Prescribed drugs, but for less than half of his patients	50%
Prescribed drugs for half or more of his patients	20%

medical schools. This makes it useless to try to check their earlier drug-prescribing with their present hospital/nonhospital status as we would like to do. Since it is one of the few captive samples of psychiatrists of varying persuasions, we must learn what we can from it.

Table 8 shows startling differences in response rates. Of those who prescribed no drugs, 60 percent returned the PTQ. Of those who prescribed drugs for less than half of their schizophrenic patients, 50 percent responded. And of those who prescribed drugs for half or more of their schizophrenic patients, only 20 percent returned the questionnaire. Thus we get the expected relation between chemotherapy and response rate. There is possibly an age effect here. The no-drug group are older, having done their residencies earlier. Other surveys have shown that older people are more likely to respond, but the differences are never of this order.

As noted above, the current report of chemotherapy use from the Follow-up Study does not correlate with the Phipps residents' current behavior in responding to the PTQ. But their earlier (by about 15 years) drug-prescribing as found in the Phipps records does predict strongly their current responding. Needless to say, there is no correlation between their current report of chemotherapy use and their earlier drug-prescribing. Nor is there any correlation if we consider only those who completed their residencies in 1959 or later. All of this casts some doubt on whether their current report of chemotherapy use reflects their own professional preferences.

Of the four variables (hospital/nonhospital, empathic interest, chemotherapy, and interest in psychopharmacology), hospital/nonhospital is the most attractive. (1) It does show some of the expected difference in response rate. (2) It is available for all psychiatrists and psychiatric residents. (3) It is easily replicable. (4) And it can be used to classify studies. For example, the Draper study discussed on page 19 is clearly a hospital study. Moreover, since the therapists were medical interns, they were undoubtedly somatically oriented as a group. *We will therefore use the hospital/nonhospital groups as reflecting the somatic vs. the psychosocial orientation.* However, we should note that somatically oriented psychiatrists, because of their lower response rates, are probably underrepresented in the hospital group. Another way of saying it is that the hospital group is probably nearer to the middle of the dimension, psycho-social to somatic. Thus a partial reversal in correlations between the hospital and nonhospital groups may be *suggestive* of a complete reversal if we could get data from those with a fully somatic orientation.

For the clinical psychologists in training we do not have data on hospital affiliation. We will therefore concentrate our attention on the 89 psychiatrists and psychiatric residents, 46 of whom are in nonhospital settings and 43 are in hospital settings.

Further discussion of the somatic vs. psychosocial orientation is presented in appendix 8.

What Is the Meaning of the "A-B Scale"?

Table 9 presents the PTQ correlates of the "A-B Scale" for various subgroups in the pres-

ent data.[1] We will be interested in the patterns presented in this table, not the specifics. The patterns presented there have been found to be stable over a variety of analysis formats.

If we look first in table 9 for the underlined coefficients, those significantly different from zero, we are drawn to column 3, the nonhospital psychiatrists. Almost a third of this group are from the original Phipps residents. Almost a fourth of column 4 are also former Phipps residents.

The nonhospital psychiatrists and psychiatric residents in column 3 are presumed to be nearest to the psycho-social orientation of the Meyer-Whitehorn Phipps Clinic. If we were to break column 3 into three groups—former Phipps residents, other nonhospital psychiatrists, and nonhospital psychiatric residents—there are no significant differences in means, or in covariance matrices among the three groups. As between the groups in columns 3 and 4, there are only a few differences in means, but there are substantial, consistent differences in covariance matrices.

There is a tendency for the signs of the correlations to be reversed between columns 3 and 4. Thus when these two groups are combined in column 1, we get correlations which are smaller and less representative of either group. We conclude that for psychiatrists as a whole the "A-B Scale" has very little meaning. Whatever meaning it has for nonhospital psychiatrists, the meaning for hospital psychiatrists tends to be just the reverse.

If we look now at the nine psychology majors and the nine premedical students we see a similar tendency to reversal. Moreover, the nine psychology majors are more like the nonhospital psychiatrists than either of the other two groups.

We cannot say from these data what precisely the meaning of the "A-B Scale" is. It is possible that other personality measures not included in the PTQ might correlate as well or better than these measures do. What we can say is that the scale has different meanings for different groups. (It is different again for the counselors and house parents.) It cannot be generalized, but there is a greater likelihood that undergraduate psychology majors will reproduce its original meaning than will psychiatrists in hospitals.

In all of this complexity we need to keep separate two aspects of the reversal of the A-B predictor. The *functional reversal* refers to the differential hypothesis that the A's are more effective with schizophrenics, while the B's are more effective with some other diagnostic group, notably, V.A. outpatients. The *semantic reversal* refers to the fact that the correlates of the A-B predictor are reversed in sign in different groups of therapists.

We have no evidence that the functional reversal is simply a semantic reversal. It is reasonable to assume that the Phipps Clinic and the V.A. outpatient clinics were similar in having a psycho-social orientation. We will need to look at this question in more detail when we have all the findings before us.

We will turn away now from the original 23-item A-B predictor. It will appear in some tables for information purposes. But our attention will be toward new predictors and scales which will tell us more about the differing modes of treating patients. Actually, we seek to dispose of all the multisemantic SVIB clusters and replace them with personality dimensions which have more meaning for therapy. But we must not discard the SVIB's until we have learned all we can from them. For that we will study the Phipps data in greater detail than has previously been done.

But one caveat before we leave the original "A-B Scale." The fact that it reverses its meaning does not imply that the treatment of schizophrenics should be reversed. This question gets more attention in the last two sections of this chapter where it will be shown that the W-B 23 fails to predict success with schizophrenics when drugs are prescribed, but where it will also be shown that the correlates of the W-B 23 are similar to the correlates of an appropriate predictor for success with schizophrenics when drugs are prescribed.

[1]The "A-B Scale" is the WB-22 Predictor, 22 of the 23 items in the original scale. One item was excluded from the PTQ because it had not performed well in a number of analyses. Also, as explained in detail in appendix 1, the WB-22 scoring is somewhat different from that for the 23-item scale presented in table 1. In spite of these differences, the WB-22 is correlated .964 with the scores on the 23-item scale computed by Barbara Betz for the original Phipps residents. It is therefore a reasonable substitute for those scores.

Table 9.—Correlation Between the WB-22 Predictor and PTQ Personality Scales

(Pearsonian r's)

PTQ Personality Scale	(1) Psychiatrists	(2) Normal Volunteers	(3) Psychiatrists: Non-Hospital	(4) Psychiatrists: Hospital	(5) p for (3) minus (4)	(6) Volunteers: Psychology Majors	(7) Volunteers: Pre-med.	(8) p for (6) minus (7)
Number of Respondents	89	18	46	43		9	9	
Need for Closure	−.23	−.15	−.43	.04	**	−.71	.06	*
Regression in the Service of the Ego	.11	−.16	.41	−.24	***	−.11	−.55	
Empathic Interest	.04	−.09	.33	−.27	***	.08	−.29	
Work Ethic	−.22	.34	−.44	.07	**	.06	.79	*
Need for Order	−.19	−.13	−.37	−.01	*	−.50	.12	
Tolerance of the Unrealistic Experience	−.06	.07	.22	−.31	**	.21	−.02	
Tolerance of Ambivalence	.04	.15	.13	−.12		.38	−.03	
Preference for Decision Making	.09	−.24	.14	.03		.24	−.40	
High Personal Standards	.22	.30	.28	.18		.22	.37	
Remorse	−.17	.25	−.29	−.09		−.59	.79	***
Antidemocratic	−.01	−.03	−.18	.23		.03	−.15	
Individualism	.01	−.13	.24	−.21		−.03	−.20	
Deference Anxiety	.16	.08	.28	.02		.17	.04	
Nurturance Anxiety	.26	−.60	.36	.17		.33	−.93	**
Science and Moral Values	−.11	−.32	−.23	.05		.09	−.66	
Preference for Intellectual Challenge	−.17	−.44	−.16	−.18		−.29	−.50	
Extroversion	.27	.40	.21	.34		.48	.37	

Underlining indicates that a correlation is significantly different from zero at the .05 level.

* The two correlation coefficients in the columns being compared differ from each other at the .10 level.

** They differ at the .05 level.

*** They differ at the .01 level.

Significance levels were computed before the coefficients were rounded to two digits.

Further Analyses of the Phipps Clinic Data

When I asked Dr. Joseph H. Stephens about the possibility of doing further analyses of the Whitehorn-Betz data, I had two things in mind. First, I was curious about how well the A-B predictor worked for the *female therapists.* Second, I hoped to *increase the number of items* in the A-B predictor and thus facilitate the isolation of more scales within the predictor. As I proceeded still other important purposes presented themselves: developing *similar scales for depressives and neurotics,* and *controlling for drug therapy* effects.

I was delighted to discover that Dr. Stephens had acted not simply as a caretaker of the Whitehorn-Betz data. By systematically searching the files, he had been able to add more patients and more therapists. And he had vastly increased the number of other measures available for each therapist.

As for the female therapists that had been included in the original analysis, I had considerable doubts that a predictor, the central dimension of which was the rejection of manual tasks, could mean the same thing for them as it meant for males. Perhaps it might in the liberated 1970's, but hardly in the 1940's and 1950's when "Rosie, the Riveter" of World War II fame was still a new phenomenon. Indeed it turned out that the A-B items that are predictive for men are not predictive for women (Stephens et al. 1975). Actually, the women as a group were slightly more effective with schizophrenics than were the men. Moreover, as a group they tended to reject the manual occupations. As a group, then, they tended to artificially reinforce the central dimension in the original predictor. However, within the group of females, this dimension is not predictive.

As for the second objective, increasing the number of items in the A-B predictor, I hoped that by using more of the data and more powerful and accurate statistical techniques, I could generate a larger number of items that relate to success with schizophrenics. Actually, the number of items generated is primarily a function of the number of doctors. By eliminating female therapists and controlling for drug therapy (below), the number of doctors was reduced and the number of items increased only a little as a result of the better techniques.

At the time, I was having long talks with Dr. Whitehorn and with Dr. Betz. It became evident that they had done considerable work on the therapists' success rates with depressives and with neurotics. They were aware and had noted in some of their writings that doctors were not uniformly successful with the three types of patients. They felt that depressive and neurotic improvement rates tended to be much higher than schizophrenic rates, and that the variation in the depressive and neurotic rates was not sufficient to warrant analyses. It is my belief that we ought to let the data tell us whether the variation is significant; that is, in a bootstraps science we simply ask whether the results of analysis are meaningful and suggestive of further hypotheses.

Accordingly, I asked Dr. Stephens whether there were in the files any data on the doctors' success rates with depressives and neurotics. Indeed he found such data for nearly all the doctors. (These "percent-improved" rates are the original work of Whitehorn and Betz. They have not been checked by Stephens.) For most of the doctors, then, we have three "percent-improved" rates: for schizophrenics, for depressives, and for neurotics. Each of these generates a set of predictor items from the SVIB.

The depressives include both psychotic and neurotic depressives, about equally divided. The data currently available do not permit us to compute separate indices for the two types of depressives. This is unfortunate, but still it will be of use to compare the treatment of the schizophenias with that of the depressions, as discussed on page 12 above.

The neurotics were brought to the Phipps Clinic from far and wide. They were very severely disturbed, probably quite different from the outpatients of NcNair, Callahan, and Lorr, which are presumed to be chiefly neurotic but included also some personality disorders (page 19). I did not expect, therefore, that these data on neurotics would necessarily constitute a test of their findings.

At the time these data for depressives and neurotics became available, the Personal Tendencies Questionnaire was already into its

final formal review for the U.S. Office of Management and the Budget. Some analyses of the new data for depressives and neurotics were done quickly and an extra page of SVIB items was added to the PTQ.

Meanwhile, I had been doing considerable work with respect to the last of the four objectives: the introduction of the neuroleptics. Dr. Betz felt, and Dr. Whitehorn tended to agree, that these drugs change the doctor-patient relationship in schizophrenia. The successful doctor's personality is one half of a relationship, the other half presumed to be a somewhat homogeneous rubric—the schizophrenias. If the drugs change the latter, they change the relationship, and indeed also the former.

By using the 47 doctors who completed their residencies before 1959, I hoped to approximate this drug-free relationship. The item analyses for these 47 doctors are presented in appendix 5. They are of interest partly because they explain which SVIB items were included in the PTQ. They are also of interest for comparison with later analyses.

In January 1975 Dr. Stephens furnished still more data: the percent of each doctor's schizophrenic patients who (1) were women, (2) were process vs. nonprocess, (3) got ECT, (4) got insulin shock, (5) *got drugs.* These data revealed that of the 47 doctors, there were 12 who had prescribed drugs. Thus there were in fact only 35 doctors who had prescribed no drugs for their schizophrenic patients.

The SVIB's were analyzed again, using the 35 doctors only. For, although the PTQ could not be changed at this point, the scoring of the PTQ could be changed. The item analyses of the 35 doctors are shown in tables 10-13.

The data regarding prescribed drugs are for schizophrenic patients only. We do not have similar data for the depressive and neurotic patients. The antidepressant drugs were not introduced until several years after the neuroleptics. On the other hand, the neuroleptics are also known as antipsychotics. They might well have been prescribed for psychotic depressions. Therefore, the analyses of the 35 doctors is probably the best approximation to the "drug-free relationships" for all diagnostic groups.

Casual inspection shows that the tables for 47 doctors in appendix 5 are quite different from tables 10-13. Taking out 12 doctors who prescribed drugs makes a difference. This and other findings to be reported confirm that the difference is important and should be explored as fully as possible even though the number of doctors prescribing drugs might be considerably less that 35. First, though, we will explore the "drug-free therapeutic relationships."

The Phipps Data—Drug-Free Therapeutic Relationships

The best way to understand the contents of tables 10-13 is to consider the summary variables presented in table 14. Many of these variables are not independent of each other; e.g., the same items may be used in more than one predictor. It is not suprising, then, that there are so many correlations which are significant at the .01 level. In studying this table, we will be concerned not so much with significance levels as with whether a particular coefficient is high enough or low enough for those purposes for which we mean to use it.

The variables in table 14 are of several types. W-B 23 and 22 are not part of the reanalysis. Rather, they are closest to the "A-B Scale" that has been used in other studies. They are included to show their relation to the new predictors and scales. The three MPRV variables are the criteria of success—*percent of patients improved* for the three diagnostic groups. It is from these three criteria that all of the remaining predictors and clusters are derived. The three TOTL predictors are all those items in the PTQ which predict a criterion. Since some items predict more than one criterion, the TOTL predictors are not statistically independent of each other. On the other hand, S, D, and N include only the items distinctive to a single criterion. These predictors are specific to the specific diagnoses. The OTHR variables include the items that were not included in the PTQ but should have been, had these analyses of the Phipps data been finished before the PTQ's were collected. The lower part of the table is concerned with "clusters," i.e., groups of items from within the various predictors which are intercorrelated with each other.

Table 10.—SVIB Items Correlated With Therapists' Percent Improvement in Patients Who Are Schizophrenic, Depressive, or Neurotic

(Doctors who did not prescribe drugs for schizophrenics)

			N = 35		N = 34**		N = 32**	
Item Number			**Schizophrenic**		**Depressive**		**Neurotic**	
SVIB	**PTQ**	**Item**	**Gamma**	**p**	**Gamma**	**p**	**Gamma**	**p**
		SD items: (6)						
17	3-31	Building Contractor*	—.45	.02	—.39	.04		
19	3-32	Carpenter*	—.51	.01	—.53	.01		
56	3-41	Machinist	—.35	.05	—.36	.05		
60	3-43	Mechanical Engineer*	(—.26	.15)	—.45	.01		
94	3-52	Toolmaker*	—.45	.001	—.41	.03		
188	3-71	Repairing Elec. wiring	—.37	.05	—.57	.004		
155		Excursions	(.41	.06)	(.37	.09)		
162		Animal zoos	.62	.01	(.37	.10)		
209		Adjusting difficulties of others	(.50	.10)			(—.72	.09)
		DN items (4)						
8	3-29	Auctioneer DBUSNS			(—.36	.09)	—.44	.05
103		Arithmetic			(—.38	.10)	(—.58	.06)
105	3-56	Bookkeeping DBUSNS			—.51	.01	—.52	.02
255	4-4	Foreigners NQUEST2			(—.37	.09)	—.68	.004
280	4-7	Athletic men NQUEST2			(—.41	.06)	—.54	.04
287		Sell the machine			—.50	.04	(—.44	.09)
301		Luther Burbank "plant wizard"			(.33	.08)	(.37	.09)

In parentheses are relations between the .05 and the .10 level of significance.

** One of the doctors did not have enough depressive patients to yield a reliable improvement rate; three of the doctors did not have enough neurotic patients.

* Original 23 items.

Table 11.—SVIB Items Correlated With Therapists' Percent Improvement in Patients Who Are *Schizophrenic*

(Doctors who did not prescribe drugs for schizophrenics)
N = 35

Item Number SVIB	PTQ	Item		Gamma	p
13		Auto Repairman		—.37	.04
59	3-42	Marine Engineer*	SQUEST	—.64	.001
150		Collecting postage stamps		.48	.01
158	3-64	Conventions	SQUEST	.43	.02
170		Snakes		.56	.004
184	3-67	Social problem movies	SXPRSS	.47	.04
189	3-72	Cabinetmaking*	SQUEST	—.37	.06
225		Continually changing activities		.38	.05
283		Discover an improvement in the design of the machine		.52	.01
289		Teach others the use of the machine		—.46	.02
323		Chauffeur vs. Chef (B)		.44	.01
341	3-19	Work involving few details vs. many details (A)		—.47	.008
352	3-28	Nights spent at home vs. away (A)	SXPRSS	—.52	.01
367	1-2	Accept just criticism without getting sore*	SXPRSS	.46	.03
376	1-62	Able to meet emergencies quickly and effectively	SXPRSA	.45	.05
383	1-68	Stimulate the ambition of my associates	SXPRSA	.40	.03
Between the .05 and the .10 level:					
9	3-30	Author of a novel		.53	.06
51		Lawyer, Criminal		.32	.07
55		Locomotive Engineer		—.32	.09
71	3-46	Poet		.32	.08
132		Shop Work		—.30	.10
140		Tennis		.54	.06
145		Poker		—.31	.09
195		Arguments		—.34	.07
221	3-75	Expressing judgments publicly regardless of criticism	SXPRSA	.31	.08
276		Independents in politics		.39	.08
291		Salary received for work		—.31	.09
297		Opportunity to understand just how one's superior . . .		.37	.10
311	1-18	President of a society or club*	SXPRSS	.43	.08
333		Tangible returns vs. activity for its own sake (A)		—.32	.07

(A) The A's prefer the second choice. (B) The B's prefer the second choice.
* Original 23 A-B items.

Table 12.—SVIB Item Correlated With Therapists' Percent Improvement in Patients Who Are *Depressives*

(Doctors who did not prescribe drugs for schizophrenics)
N = 34

Item Number SVIB	PTQ	Item		Gamma	p
29		Dentist		—.42	.04
38	3-37	Floorwalker	DBUSNS	—.81	.01
42		Hotel Keeper or Manager		—.46	.02
48	3-40	Labor Arbitrator		.42	.02
64	3-44	Office Clerk	DBUSNS	—.67	.02
68	3-45	Photoengraver*	DBUSNS	—.43	.03
80	3-48	Retailer	DBUSNS	—.70	.001
90	3-50	Specialty Salesman*	DBUSNS	—.62	.006
99	3-53	Wholesaler	DBUSNS	—.65	.001
109		Civics	DCIVIC	.41	.05
166	3-65	Musical Comedy	DBUSNS	—.71	.03
180		"Popular Mechanics"		—.43	.05
190		Operating machinery		—.50	.01
197		Interviewing prospects in selling		—.40	.04
245	4-3	People who have made fortunes in business	DBUSNS	—.57	.004
260		Side-show freaks		—.55	.01
306		J. P. Morgan, financier	DCIVIC	—.37	.04
338		Work in a large corporation with little chance of becoming president vs. work for self (B)	DCIVIC	.37	.03
373	2-3	Am always on time with my work		—.46	.02
Between the .05 and .10 level:					
25		Civil Service Employee		—.47	.06
54		Life Insurance Salesman		—.61	.06
73		Printer		—.35	.09
74	3-47	Private Secretary	DBUSNS	—.35	.08
95		Traveling Salesman		—.40	.10
100		Worker in YMCA, KOFC, etc.		—.38	.07
116		History		.38	.09
135		Typewriting		—.36	.07
156		Smokers		.33	.09
257		Nervous people		—.31	.10
279	4-6	People who chew gum		.42	.10
379		Have good judgment in appraising values		.41	.08
397		Tell jokes well vs. never tell jokes (A)		—.36	.08

* Original 23 A-B items.

(A) The A's prefer the second choice.

(B) The B's prefer the second choice.

Table 13.—SVIB Items Correlated With Therapists' Percent Improvement in Patients Who Are *Neurotics*

(Doctors who did not prescribe drugs for schizophrenics)
N = 32

Item Number SVIB	Item Number PTQ	Item		Gamma	p
16		Bookkeeper		—.54	.05
101	3-55	Algebra	NSOLVE	—.77	.01
113		Geography		.54	.04
115	3-57	Geometry	NSOLVE	—.66	.02
119	3-58	Literature	NQEST1	.49	.05
148	3-61	Solving mechanical puzzles	NSOLVE	—.47	.03
149	3-62	Performing sleight-of-hand tricks	NSOLVE	—.61	.01
171		Sporting pages		—.54	.02
173	3-66	Detective stories	NSOLVE	—.51	.03
185	3-68	Making a radio set*	NSOLVE	—.44	.04
186	3-69	Repairing a clock	NSOLVE	—.46	.03
240		Optimists		—.49	.03
269	4-5	People who talk very slowly	NQUEST2	.52	.04
303		Thomas A. Edison, inventor		.68	.01
310		John Wanamaker, merchant		—.50	.03
316		Chairman, Educational Committee		.47	.04
350		Playing baseball vs. watching baseball (A)		—.51	.03
359	3-23	Jealous vs. conceited people (A)	NQEST1	—.54	.03
390		Usually ignore other's feelings vs. consider (A)		—.52	.02
Between the .05 and .10 level:					
7		Athletic Director		—.36	.09
11		Auto Salesman		—.38	.10
15		Bank Teller		—.52	.07
21	3-33	Cashier in a bank	NQEST1	—.46	.07
70		Playground Director		—.30	.10
129		Psychology		.48	.08
130		Physiology		.53	.06
142		Taking long walks		.43	.06
165		Vaudeville		.43	.06
198		Interviewing clients		—.46	.10
217		Bargaining ("swapping")		—.36	.09
236		Energetic people		—.72	.09
286		Create a new artistic effect, i.e., improve beauty		.36	.10
275		Bolshevists		.42	.07
318		Chairman, Membership Committee		—.42	.07
353	2-35	Reading a book vs. going to movies (B)		.40	.07
358		Tall men vs. short men (A)		—.52	.07
386	3-24	Smooth out tangles and disagreements between people		—.62	.06
399		Frequently make wagers vs. never (A)		—.57	.08

* Original 23 A-B items.
(A) The A's prefer the second choice.
(B) The B's prefer the second choice.

Table 14.—The Criterion Variables—Percent Improved of Schizophrenic, of Depressive, and of Neurotic Patients Intercorrelated With the A-B Predictors and the A-B Clusters

(Phipps Clinic Therapists Who Did Not Prescribe Drugs for Any of Their Schizophrenic Patients)

	Variable & Table Number	W-R 23	W-B 22	MPRV S	MPRV D	MPRV N	TOTL S	TOTL D	TOTL N	SD	DN	S	D	N	S OTHR	D OTHR	N OTHR
		Percent Improved					A-B Predictors										
Percent Improved	W-B 22 1	.964															
	MPRV S	.458	.463														
	MPRV D	.462	.446	.334													
	MPRV N	.226	.267	.106	.309												
A-B Predictors	TOTL S	.803	.823	.705	.387	.117											
	TOTL D	.782	.771	.326	.754	.335	.619										
	TOTL N	.409	.446	.010	.374	.730	.263	.535									
	SD 10	.884	.879	.443	.544	.197	.822	.869	.440								
	DN 10	.470	.479	.161	.443	.548	.354	.670	.772	.497							
	S 11	.548	.583	.737	.160	.031	.898	.279	.064	.487	.159						
	D 12	.575	.555	.198	.771	.228	.370	.906	.338	.635	.450	.078					
	N 13	.335	.378	−.051	.302	.720	.195	.416	.968	.364	.587	.018	.252				
	S OTHR	.433	.432	.711	.234	−.014	.668	.274	−.082	.419	.011	.700	.181	−.109			
	D OTHR	.128	.186	.057	.554	.285	.129	.323	.348	.193	.128	.050	.395	.392	.040		
	N OTHR	.010	−.001	.178	.242	.728	−.044	.187	.532	.089	.422	−.120	.085	.511	.052	.193	
		W-B 23	W-B 22	MPRV S	MPRV D	MPRV N	TOTL S	TOTL D	TOTL N	SD	DN	S	D	N	S OTHR	D OTHR	N OTHR
A-B Clusters	SXPRSA 11	.200	.211	.476	−.028	−.012	.392	.077	−.017	.048	.021	.565	.098	−.030	.506	−.132	−.062
	SXPRSS 11	.401	.424	.492	.185	.122	.741	.254	.223	.415	.182	.815	.079	.212	.563	.285	−.066
	SQUEST 11	.589	.645	.534	.099	.003	.658	.245	−.035	.504	.083	.620	.033	−.078	.335	−.062	−.096
	DBUSNS 12	.631	.600	.250	.670	.240	.439	.922	.442	.703	.638	.130	.903	.311	.148	.171	.145
	DCIVIC 12	.124	.200	.089	.458	−.006	.229	.258	.125	.217	−.082	.184	.341	.192	.134	.772	−.093
	NSOLVE 13	.357	.408	−.022	.290	.605	.218	.464	.912	.432	.859	.001	.259	.900	−.179	.560	.466
	NQEST1 13	.247	.274	.130	.217	.485	.258	.330	.542	.298	.258	.185	.275	.587	.181	.100	.350
	NQEST2 13	.272	.282	.020	.232	.530	.236	.300	.551	.214	.640	.196	.131	.449	.090	.097	.254

The number of cases is 35 except for MPRV D which is 34 and MPRV N which is 32. The correlations are Pearsonian r's. Single underlining indicates that r is significant at .05; double underlining, at .01. Many of the variables are not independent of other variables, i.e., some items of measurement are common to more than one variable. Among these dependencies are the following: TOTL S = SD + S. TOTL D = SD + DN + D. TOTL N = DN + N. Variables contained in the triangle marked 3 are independent in the sense that there are no overlapping items.

Clusters have the potential of being scales, i.e., having a common meaning and representing a specific therapist characteristic. Predictors are probably multidimensional, containing several clusters, and indicate what combinations of therapist factors are needed to deal with a particular diagnostic group.

Of particular importance in table 14 is triangle 1, showing the intercorrelations among the three improvement criteria. The correlations are relatively low, only one of them approaching the .05 level of significance, MPRV S and MPRV D at .334 (.335 needed at .05). The relative independence of the three criteria permits us to hypothesize that items related to each of them may stand for differentials in treatment required for the three disorders. The absence of a negative correlation between MPRV S and MPRV N suggests that the functional reversal of the "A-B Scale" will not be found in these data. If the functional reversal is valid, then the inpatient neurotics at the Phipps Clinic must be different from the outpatients at the V.A.

Considering now each variable in table 14, they can be defined as follows:

W-B 23 and *W-B 22*. W-B 23 is the original 23-item scale. In fact, this variable consists of the original scores for the 35 doctors as computed by Dr. Betz. In the W-B 22 one item (216, "Entertaining Others") is omitted. The other 22 items are included in the PTQ. The correlation of .964 between the two scales indicates that they measure practically the same thing.

MPRV S. For each doctor, the percent of his schizophrenic patients who improved. This criterion variable correlates .458 with W-B 23, a respectable correlation but not high enough to assume that the W-B 23 is a satisfactory predictor for the 35 doctors. The W-B 23 items were derived from a group of doctors that included many of the 35 doctors analyzed here who prescribed no drugs, but it also included some female doctors and some who prescribed drugs.

For the 35 doctors, the doctors' "percent of schizophrenic patients improved" is not significantly correlated, even at the .10 level, with any of the following variables: the percent of schizophrenic patients who are process schizophrenics, the percent receiving ECT, the percent receiving insulin schock, or the percent male.

MPRV D. For each doctor, the percent of his depressive patients who improved; depressives include both psychotic and neurotic depressives in about equal proportions. This criterion, not previously used for item analysis, is available for 34 of the 35 doctors.

MPRV N. Similarly for each of 32 doctors, the percent of his neurotic patients who improved.

TOTL S. (SD + S) All those items in tables 10 and 11 which are predictive of success with schizophrenics *and* which are included in the PTQ.

TOTL D. (SD + DN + D). All those items in tables 10 and 12 which are predictive of success with depressives *and* which are included in the PTQ.

TOTL N. (DN + N). All those items in tables 10 and 13 which are predictive of success with neurotics *and* which are included in the PTQ.

Triangle 2 shows the intercorrelations among these "total predictors" as they are presented in the PTQ. As compared with Triangle 1, some independence has been lost. Certain items significant for 35 doctors had not been significant for the 47 and were not included in the PTQ. Scores from these items are presented at the extreme right of table 14 under the headings: S OTHR, D OTHR, and N OTHR. Note that the correlations among these three are very low. (Lower right-hand corner of Triangle 3).

Some of the items had been deliberately excluded. Very few young people today have ever seen "Side-show freaks," and such an item is not now meaningful. These various items that are not included are further discussed below under S OTHR, D OTHR, and N OTHR.

Triangle 3 presents the intercorrelations among eight predictors which are: (1) exhaustive in the sense that all predictive items are in one or another predictor, and (2) independent in measurement in that no item appears in more than one predictor.

SD. This consists of the first six items in table 10. It is an important predictor for the following reasons: (1) It is the only one of the predictors that is also a cluster; i.e., the items intercorrelate and can be "labeled." The

average intercorrelation (gamma) for these items is .63. The "label" is the "rejection by the A's of manual and mechanical pursuits." (2) This cluster correlates more highly with the original W-B 23 than any other: .884. In fact, it represents the main cluster from the original 23-item scale. (3) While the original 23-item predictor was developed for schizophrenics, this cluster is also predictive of success with depressives, in fact, the correlation with MPRV D (.544) is slightly better than for MPRV S (.443). As such it might represent a trait which is essential to the treatment of psychotics.

The limitations of SD are two: (1) There are other predictors and scales which are better predictors of success with schizophrenics and with depressions than this one. (2) It is multisemantic, i.e., the label we have assigned to it—rejecting manual pursuits—has different meanings for different population groups.

It will be noted that there is no SN predictor. There are no items which are predictive of success with both schizophrenics and neurotics. One item, "Adjusting difficulties of others" approaches significance (.10 for MPRV S and .09 for MPRV N) *but the sign reverses.* "Geography" in table 33 might also have been included here. It correlates positively with MPRV N (.54 at .04) but negatively with MPRV S (−.51 at .09). Neither of these two items was included in the PTQ.

DN. Four items near the bottom of table 10 have some predictive power for MPRV D and MPRV N. Actually, three of them are not very strongly related to MPRV D and the resulting predictor is stronger for neurotics (.548) than for depressives (.443). When we try to build clusters from the predictors, two of the items will go into a cluster for depressives, and two into a cluster for neurotics. This DN is not a strong predictor; its items might well have been distributed in D and N below.

S. All the items in table 11 which are included in the PTQ. These items might be regarded as schizophrenic-specific. This is the strongest single predictor of success with schizophrenics. It contains at least three clusters discussed below.

D. All those items in table 12 that are included in the PTQ. This is the depressive-specific predictor and is the best single predictor for success with depressives. We shall see that it is dominated by a single cluster.

N. All those items in table 13 which are included in the PTQ. This is the neurotic-specific predictor. It contains at least three clusters.

All of the above predictors, from TOTL S to N, are built from items included in the PTQ and are designed for the analysis. It is important to look also at those items not included in the PTQ to see what might be missing. These items omitted are contained in S OTHR, D OTHR, and N OTHR.

S OTHR. All those items in table 10 and 11, significant at .05 or better with the "percent of schizophrenics improved," and not included in the PTQ. This predictor correlates .42 with SD and .70 with S. Most of its items belong in one place or the other. Specifically, by their correlations, items 13 and 162 belong in SD. Items 150, 170, and 225 belong in S. This is not to say that nothing was lost by omitting them; their inclusion would probably increase the reliability of the other scales substantially. It is to say that there appears to be little new content in S OTHR.

D OTHR. By contrast, D OTHR does seem to contain new material. Of the items in tables 10 and 12, significant at .05 or better with the "percent of depressives improved," and omitted from the PTQ, there are only three that clearly belong in D. These items are 29, 42, and 197. It can be seen in table 14 that D OTHR correlates only .395 with D. There clearly is something in D OTHR not covered by other predictors.

Item 260, Side-show freaks, is of interest because of a remark that Dr. Whitehorn made on one occasion. When I asked him for his clinical impressions he stated that a doctor who was successful with depressives was rarely on "odd ball." Rather he was conservative person. There was no suggestion that he was conservative politically or socially, only in his person. "Side-show freaks" is of course a badly dated item. Perhaps in some future study of success with depressives, someone will construct a new scale of personal conservatism.

Three other items are of interest. These doctors who are successful with depressives say they like Civics (#109), dislike J. P. Morgan, financier (#306), and they would prefer to work

in a large corporation rather than work for themselves (#338). These items are discussed under DCIVIC below.

N OTHR. Most of the items correlate with other predictors or clusters. Specifically, items 303 and 310 correlate with NQEST1 below, item 240 with DN above, 171, 350, and 390 with NSOLVE below.

A-B Predictors and A-B Scales. All of the above, with one exception, are A-B predictors—collections of items that are correlated with a common criterion, but not necessarily correlated with each other as one might expect if they constituted genuine scales. The one exception is SD. Here the average intercorrelation of items is .63; moreover, these items have a common frame of reference, the rejection of manual and mechanical pursuits, as in the original W-B 23. We have seen, though, that this rejection does not have a common meaning across different groups. When SD is substituted for WB-22 in table 9, the table is changed very little.

It is our task now to try to extract from the predictors what we can in the way of clusters. For present purposes we will accept a collection of items as a cluster if the items are appropriately intercorrelated even though we are unable to say at this time what the common meaning of the items might be. It remains for the analysis of the PTQ to suggest possible meanings for some of these clusters. In addition to SD, there are eight clusters in the lower part of table 14. Most of them are either multisemantic or their meaning is entirely ambiguous. For only a few can we guess at the meaning. If we can be reasonably sure of the meaning we will call it a scale.

The intercorrelations of the eight clusters are presented in table 15. Considering that the items are derived from three criteria, the clusters are suprisingly independent of each other. This is consistent with a hypothesis that a number of different traits are to be found among successful therapists.

SXPRSA. "Scale predicting success with schizophrenics the items of which appear to have something to do with *active* social expression." The three items can be seen in table 11. The intercorrelation among these items in .51. Social expression here is both active and *involved* in contrast with that of somatically oriented doctors shown in table 63 which is more *casual.*

SXPRSS. "Scale predicting success with schizophrenics the items of which appear to have something to do with social expression, not necessarily active." The four items shown in table 11 have an intercorrelation of .50. Item 367, accept just criticism without getting sore, actually correlates as well with SXPRSA as it does with SXPRSS and could have been included in either scale.

SQUEST. "Cluster predicting success with schizophrenics the meaning of which is questionable." The three items shown in table 11 appear to have no common meaning although the average intercorrelation is .74. We look to the PTQ to help with this scale. SQUEST does not correlate at all with SXPRSA and only moderately with SXPRSS. However, it can be seen in table 14 that it does correlate .504 with SD.

We turn now to the scales for depressives, where SD is also relevant.

DBUSNS. "Cluster predicting success with depressives the items of which appear to relate to *disliking* business pursuits." The 11 items are shown in tables 10 and 12. Their average intercorrelation is .51. This cluster dominates all the D predictors. Although it correlates with SD .703, it is not significantly related to success with schizophrenics. This cluster is multisemantic, like SD. We can look to the PTQ for ideas about its meaning.

DCIVIC. "Scale predicting success with depressives the items of which may relate to social concern." The doctors who are successful with depressives say they like Civics (#109), dislike J. P. Morgan, financier (#306), and they would prefer to work in a large corporation rather than work for themselves (#338). While the meaning of such a scale is problematic, it seems likely that psychiatric residents, vintage 1945-1958, learned in civics that J. P. Morgan was one of a group of monopolistic financiers whose business philosophy was expressed by Vanderbilt: The Public be damned.

These three items could possibly be held together by a philosophy that "no man is an island," a rejection of "rugged individualism." Note that the doctors' rejection of J. P. Morgan is not correlated with DBUSNS. This is an entirely different dimension.

Table 15.—Intercorrelation of the A-B Clusters

(35 Doctors Who Did Not Prescribe Drugs for Any of Their Schizophrenic Patients)

(Pearsonian r's)

VARIABLE	SXPRSA	SXPRSS	SQUEST	DBUSNS	DCIVIC	NSOLVE	NQUEST1
SXPRSS	.384						
SQUEST	.050	.341					
DBUSNS	.149	.074	.062				
DCIVIC	.082	.309	.021	.109			
NSOLVE	—.120	.120.	.036	.403	.093		
NQUEST1	.177	.269	—.129	.261	.161	.293	
NQUEST2	.010	.397	.146	.115	.031	.308	.246

For correlations with SD, see bottom part of table 14.

None of these DCIVIC items are included in the PTQ. Nor does the PTQ contain a scale for social concern. One item contained in the PTQ, "Labor Arbitrator" in table 12, is clearly a business-related occupation. However, far from rejecting this item as they do other business pursuits, doctors who are successful with depressives show a preference for it. The period 1945-1958 was a period of considerable labor-management strife. It is therefore reasonable that this item should correlate with DCIVIC, if indeed DCIVIC represents a broad social concern. In fact, "Labor Arbitrator" correlates as well with the three items in DCIVIC as they do with each other. Unfortunately, the intercorrelation is not high, .40.

We turn now to the three clusters predictive of success with inpatient neurotics:

NSOLVE. "Scale predictive of success with inpatient neurotics and which appears to be related to rejection of problem solving." The seven items are presented in table 13. Their average intercorrelation is .46. If "sleight-of-hand tricks" were left out, the average intercorrelation would be .50.

NQEST1. The three items are shown in table 13. The average intercorrelation is only .44. The best intercorrelation is between liking literature and not wanting to be a cashier (.75). The meaning of this cluster will be considered in chapter V (table 45).

NQEST2. The average intercorrelation among these three items is .69. The doctors successful with neurotics are "indifferent" rather than "liking" foreigners and athletic men. They like people who talk slowly (see tables 10 and 13). The possible meaning of such a collection of items is certainly problematic.

Accordingly, for further analyses in the PTQ, there are six predictors: TOTL S, TOTL D, TOTL N, for the total drug-free relationships with schizophrenic, depressive and neurotic patients, and S, D, and N, representing that portion of each relationship which is specific to that diagnosis. SD, a predictor for both schizophrenic and depressive patients happens also to have cluster properties. DN is a very weak predictor for both depressive and neurotic patients. No items were found that predict success with both schizophrenic and

neurotic patients, suggesting a considerable differentiation between these diagnoses.

Within the predictors, there are clusters, the items of which are intercorrelated. Until we can assign a meaning to a cluster, it is not properly a scale. Of the clusters, there are three which have a probable meaning for personality and might be called personality scales: SXPRSA, SXPRSS, AND NSOLVE. There are two that can be labeled, but their personality implications are unclear: SD and DBUSNS. Finally, there are three that are complete enigmas: SQUEST, NQEST1, and NQEST2. The PTQ correlates will provide some hints about some of them.

Next we will consider these PTQ correlates of the drug-free relationships. After that we will return to further analyses of the Phipps data for those doctors who prescribed drugs for their schizophrenic patients.

PTQ Correlates for the Drug-Free Relationships

How do these A-B predictors and clusters correlate with the more manifest personality scales that are included in the PTQ? The research processes are presented schematically in figure 1. The symbols and arrows on the left side represent the analyses of the Phipps data where A-B predictors, clusters, and a few personality scales are derived directly from the criterion of success. Unfortunately, most of the predictors and clusters so derived are not meaningful. We now seek their meaning by including them in another instrument which also includes a number of manifest personality (MP) scales, and determining the correlations represented by r_2, hoping thus to be able to make meaningful clinical interpretations. We will call this "chaining correlations," or "correlates of correlates."

It is obvious from the figure that the correlations we really seek are those represented by r_3 on the diagonal. Given r_1 and r_2, what can we say about r_3? Suppose r_1 were .60 and r_2 were .40, what might be the value of r_3? Statistically, and theoretically, it could be anything from -1.00 through zero to $+1.00$. Some relevant data are presented in appendix 5.

The point is that the "correlates of correlates" presented here are hunches, useful hunches, but of lesser predictive validity than the correlates of the original criteria. We shall see that certain observed patterns of correlations are very difficult to explain on the basis of chance, quite aside from statistical tests of significance. But our interest is in patterns rather than in specific correlations.

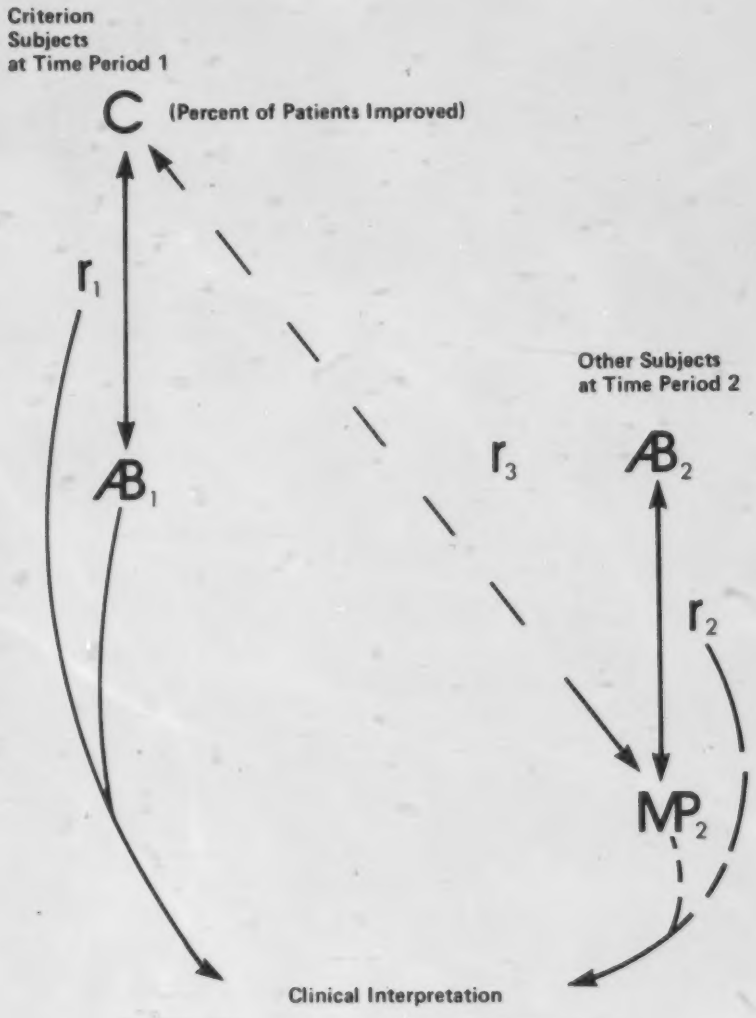
The PTQ correlates are shown in table 16. Two of the PTQ scales are not shown since they have no significant correlates with any of the AB predictors and scales (Fervor and Life Satisfaction). It we count all the possible intercorrelations, excluding WB 22, we find that almost a quarter of them are significant at the .05 level.

This table is computed from data for the 46 *non*hospital psychiatrists and residents. Similar data for 43 hospital psychiatrists and residents is presented in table 58, appendix 7. In that table less than a tenth of the correlations are significant. In the two tables, if we consider only the five predictors that are measured independently, the percentages significant are 27 percent and 8 percent respectively. This is consistent with our assumption that the drug-free predictors are more appropriate for *non*hospital therapists than for hospital therapists.

In table 16, the patterns suggest that some therapist traits are more general than others. One or two seem to be correlated with all three diagnostic areas, others only for the schizophrenias and depressions. Still others seem to apply only to a single diagnostic group, and in the case of the schizophrenias only to certain predictors for that diagnostic group. The correlates of S are very different from those of SD. Further interpretation of this table is considered in Chapter VI, Clinical Interpretation.

Let us return now to the Phipps Clinic data for those doctors who prescribed drugs for their schizophrenic patients.

Figure 1
SCHEMATIC DIAGRAM – CRITERION VS. CORRELATIONAL STUDIES



The Phipps Data—Psychotherapy Plus Drugs for Schizophrenics

We noted above that, if drugs change the behavior of schizophrenics, then they change the therapeutic relationship, and presumably thereby the therapist traits essential to success. Beyond the change in the *patient*, drugs may imply a change in the *therapist*, namely that therapists who prefer to use drugs may be different from those who prefer psycho-social treatment. To this issue we have already given some attention. Appendix 8 provides support for the studies of Hollingshead and Redlich and others, that, indeed, the two types of doctors are different.

Of the 17 therapists at Phipps who finished their residencies in 1959 or later, there are 12 who prescribed drugs for half or more of their schizophrenic patients. We will assume that these 12 are somatically oriented. We now ask the question: what SVIB items are correlated

Table 16.—Personality Correlates of the A-B Predictors and Clusters, Drug-Free Relationships

Pearsonian r's N = 46

Personality Variable App. 4 Table Number	for Schizophrenics						for Depressives				for Neurotics					
	W-B 22	TOTL S	S	SXPRSA	SXPRSS	SQUEST	SD	TOTL D	D	DBUSNS	DN	TOTL N	N	NSOLVE	NQEST1	NQEST2
31 Need for Closure	−.427	−.407	−.266	−.416	−.267	.120	−.438	−.606	−.470	−.583	−.488	−.612	−.568	−.460	−.168	−.239
32 Regression in the Service of the Ego	.410	.413	.263	.131	.147	.217	.451	.482	.335	.359	.192	.166	.164	.041	.268	−.043
33 Empathic Interest	.334	.332	.243	.214	.290	.046	.333	.434	.365	.382	.227	.224	.238	.193	.040	.095
34 Work Ethic	−.440	−.408	−.252	−.219	−.116	−.249	−.454	−.354	−.089	−.192	−.183	−.311	−.291	−.300	−.056	.026
35 Need for Order	−.368	−.406	−.338	−.129	−.364	−.206	−.367	−.234	−.019	.049	−.024	−.017	−.021	−.044	.110	−.211
36 Tolerance of the Unreal Experience	.220	.315	.319	.105	.372	.041	.230	.300	.308	.373	.160	.128	.104	.140	−.067	.053
37 Tolerance of Ambivalence	.131	.291	.302	.479	.199	−.077	.206	.112	−.013	.027	−.021	.187	.202	.194	.072	.015
38 Preference for Decision Making	.142	.295	.386	.485	.445	−.194	.131	.285	.354	.274	.112	.274	.299	.185	.219	.124
39 High Personal Standards	.285	.323	.413	.348	.387	.200	.153	.079	−.040	.029	.042	.126	.128	.054	.229	.017
40 Remorse	−.293	−.271	−.336	−.150	−.306	−.221	−.137	−.126	−.072	−.085	−.036	−.184	−.195	−.158	−.110	−.073
41 Antidemocratic	−.185	−.146	−.027	.083	−.182	.066	−.222	−.373	−.345	−.383	−.295	−.152	−.122	−.125	.028	−.059
42 Individualism	.242	.126	−.040	−.018	−.075	.038	.254	.386	.391	.312	.153	.110	.121	−.001	.178	−.052
43 Deference Anxiety	.276	.171	.010	.090	−.067	.064	.283	.482	.516	.428	.224	.177	.171	.079	.236	−.033
44 Nurturance Anxiety	.355	.216	.000	.051	.044	.120	.368	.341	.186	.242	.120	.401	.440	.426	.069	−.014
45 Science and Moral Values	−.228	−.076	.041	−.024	.203	−.073	−.169	−.120	.071	−.117	−.266	−.325	−.281	−.382	−.065	−.000
46 Preference for Intellectual Challenge	−.157	−.030	.049	.190	−.117	−.064	−.098	−.051	.050	−.074	−.086	−.229	−.251	−.394	.235	−.200
47 Extroversion	.209	.233	.217	.123	.100	.329	.189	.214	.238	−.028	−.102	.036	.093	−.045	.337	−.015
50 Work Activity	−.186	−.279	−.184	−.031	−.016	−.304	−.300	−.163	.064	.110	−.085	−.163	−.158	−.063	−.251	−.116

Single underlining means significantly different from zero at .05, two-tail. Double underlining, .01
Variables in the heading are described on pages 35 to 44.

Table 17.—SVIB Items Correlated With Doctor's Percent Improvement in Schizophrenic Patients for Whom They Prescribed Drugs

(12 male doctors who ended their residencies in 1959 or later and who prescribed drugs for half or more of their schizophrenic patients)

Item number SVIB	PTQ	Item		Gamma	p
12		Auto racer		.68	.03
24		Civil engineer		—.74	.03
44	3-38	Interpreter	ABDRUG	.78	.03
48	3-40	Labor Arbitrator	ABDRUG	.77	.04
104		Art		—.72	.05
144		Chess		.69	.04
195		Arguments		.76	.02
278		Men who use perfume		.88	.02
306		J. P. Morgan, financier		.76*	.02
327		Repair auto vs. drive auto (A)		—.92	.04
328		Develop plans vs. execute plans (A)		—.94	.01
342		Outside work vs. inside work (A)		—.77	.01
352	3-28	Nights at home vs. nights away (B)	ABDRUG	.65*	.05
353	2-35	Reading a book vs. movies (B)	ABDRUG	.77	.02
Between the .05 and the .10 level:					
4		Army officer		.65	.08
20		Cartoonist		—.78	.07
125		Nature study		—.70	.10
148	3-61	Solving mechanical puzzles		—.54	.10
180		"Popular Mechanics"		—.55	.09
190		Operating machinery		—.57	.09
202		Teaching children		.68	.09
206		Meeting and directing people		—.71	.08
216		Entertaining others**		—.70	.10
261		People with gold teeth		.64	.06
302		Enrico Caruso, singer		—.56	.09
334	3-26	Taking a chance vs. playing safe (B)	ABDRUG	.51	.06
340	3-10	Small pay, large opportunities vs. good pay, little opportunity (B)	ABDRUG	.96	.07
357		Fat men vs. thin men (B)		.71	.06
358		Tall men vs. short men (A)		—.66	.08
368	1-22	Have mechanical ingenuity (inventiveness)**		—.55	.09
384		Show firmness without being easy		.65	.09
393		Usually make excuses vs. never (A)		—.96	.07

* The sign of this item is reversed from that found in previous analyses.

** Original 23 items.

(A) The A's prefer the second choice.

(B) The B's prefer the second choice.

with their success *with those patients for whom drugs were prescribed?* The percent of patients improved varies from 67 percent to 100 percent, with an average of 80 percent. Table 17 presents the items that are discriminated by this criterion.

There are at least four empirical clusters in table 17, some of which do not seem to make much sense. The empirical clusters are: (1) 44, 340, 353; (2) 12, 104, 278, 328; (3) 24, 144, 261; (4) 48, 195, 342.

Jill Rierdan has studied these clusters. She notes that the first cluster—interpreter, opportunity for advancement, and reading vs. movies—all involve activity. She also observes that the items in the fourth cluster—labor arbitrator, arguments, and inside work—involve reasoning. She suggests that the A therapist is much more concerned with *reasoning* than with *solving* (personal communication). The insight would be consistent with the inference from table 16 that the A therapist has a low need for closure.

Only six of the items in table 17 significant at .07 or less were included in the PTQ. However, if we compute a score for these six items and correlate it with a score computed from all items significant at .05, the resulting r is .93. In other words, the six items in the PTQ very closely reproduce the total score, and we can expect that the PTQ will give us some idea what table 17 represents. These six items are labeled *ABDRUG* and this predictor for the drug-associated relationship is roughly comparable to *TOTL S* in the drug-free relationship.

It should be noted that while one of the six ABDRUG items also predicted success with schizophrenics in the drug-free relationship, it is now reversed in sign. Successful therapists in the drug-free relationship preferred "nights away" to "nights at home." Successful therapists in the drug-associated relationship prefer "nights at home." We cannot help wondering whether "nights at home" means the same thing to the two groups. Could one of these groups look to nights at home as nights alone, while the other is thinking of entertaining people at home?

We have no data for the therapists' use of drugs with their depressive and their neurotic patients. Moreover, during this period, the concern of Whitehorn and Betz that nearly all such patients improve is valid. Almost all doctors have a 100 percent improvement rate with their neurotic and depressive patients. In order to study their success, we need another criterion of success. (Such a criterion is undoubtedly available in the Phipps Clinic data. See page 16.)

Considering only the schizophrenic patients, what are the interrelationships among the criteria and the predictors in the drug-free and the drug-related therapeutic relationships? Table 18 attempts to relate the various criteria and predictors. A new variable is introduced: among the somatic therapists, the percent improved of schizophrenic patients *for whom no drugs were prescribed.* This is the therapists' success in the drug-free relationship to be compared with their success in the drug-associated relationship. In order to compute this figure, it was necessary to relax one of Dr. Stephens' standards for "percent improved." For all other percents, there must have been at least four patients; this one is computed if there are at least two patients. Two of the doctors do not have even two drug-free patients so we have this measure for only 10 of the 12 doctors.

Note that these 10 doctors' success with their no-drug patients does not correlate (.13) with their success with their drug patients. Note that *ABDRUG* does reasonably reproduce the percent-improved criterion from which it was drawn (.84) but does not correlate strongly with the no-drug percent improved (.39). The drug predictor does not work for their no-drug patients. Do the no-drug predictors work for these patients?

If we compute for these drug-prescribing therapists their scores on the A-B predictors derived from the analyses of the 35 doctors in the drug-free relationship, we can test how those predictors work for both the drug-associated relationship and the drug-free relationship among drug-prescribing therapists. In the first column of table 18 it can be seen that some of the no-drug predictors also predict success for the no-drug patients of these drug-prescribing therapists. This replication is of some interest. Note that SXPRSA is a manifest scale; its meaning is reasonably evident.

On the other hand, WB 23 and SD are

Table 18.—Interrelation of Criteria and A-B Predictors for Therapists Who Prescribed Drugs*

(Pearsonian r's)

Variable	% of Schizophrenic Patients Improved	
	No Drugs	Drugs
% of schizophrenics improved:		
Patients with no drugs	1.00	
Patients on drugs	.13	1.00
ABDRUG (Drug-Associated Predictor)	.39	.84
The Drug-Free Predictors:		
TOTL S	.54	.42
SD	.13	.31
S	.76	.39
SXPRSA	.62	.30
SXPRSS	.23	— .03
SQUEST	.47	.19
S OTHR	— .35	— .32
W-B 23	.44	.24

*12 male therapists who ended their residencies in 1959 or later and who prescribed drugs for half or more of their schizophrenic patients, except that 2 prescribed drugs for all or nearly all of their schizophrenic patients, leaving only 10 therapists for the no-drug criterion.

Single underlining indicates r is significant beyond the .05, double underlining beyond the .01 level (two-tail test.)

multisemantic; they change their meanings as we pass from hospital to nonhospital psychiatrists. In table 14 we found that, while WB-23 is dominated by a subscale, SD, neither of these correlate well with SXPRSA. The failure of WB-23 and SD in table 18 could be due to their multisemantic nature, i.e., the therapists prescribing drugs are different.

In the next section we shall see that some correlates of WB 23 and of SD are similar to some correlates of the drug-associated predictor, ABDRUG, thus giving some support to the idea that it is the multisemantic nature of the "A-B Scale" which destroys its predictive power when drugs are prescribed. But some of the correlates are different. Moreover, SXPRSA, a manifest scale, falls short also of a significant relationship when drugs are prescribed, even though the therapists are the same (table 18). Thus the data suggests that *some* therapeutic requirements of schizophrenics may remain constant when drugs are prescribed while others do not. This is discussed further on pages 51 and 161.

For now it is sufficient to conclude that (a) the three-item predictor, SXPRSA, is replicated in the no-drug situation, and (b) WB-23 and SD fail to predict in the drug situation. The latter two appear not to be relevant for somatically oriented therapists, or in settings where drugs are a major aspect of therapy.

These findings explain some anomalies in the literature. Stephens and Astrup (1965) using Phipps Clinic data, found no relation between therapists' "A-B Score" and patient outcome. Most of the patients in their study

received drugs. Similarly, studies in settings where drugs are used extensively have tended to show null findings or reversals (e.g., Draper, 1967; May, 1968; Bowden et al., 1972).

PTQ Correlates When Drugs Are Prescribed for Schizophrenics

The predictor, *ABDRUG*, consists of the six items included in the PTQ which are correlated with the therapists' success with schizophrenics when drugs are prescribed. Since these six items together correlate .93 with the score of all such predictive items, it may be useful to study the PTQ correlates of ABDRUG. These correlates are shown in the first two columns of table 19. The first column is for hospital psychiatrists and residents, presumably those who would be prescribing drugs. The second column is for the nonhospital psychiatrists and residents. As between these two columns there are more significant correlations for the presumably appropriate group than for the presumably inappropriate group.

The last two columns show the correlates of the drug-free predictor, TOTL S, again for hospital and nonhospital psychiatrists and residents. And again the number of significant correlations tends to confirm the appropriateness of the group for the TOTL S predictor. (Column 3 is from table 58 in appendix 7. Column 4 is from table 16 above.)

Table 19 was sufficiently stunning that I found it difficult to believe. I have therefore checked it over a number of times. Here we have two multisemantic predictors, with only one SVIB item in common, and that item reversed in sign. When these predictors are applied to presumably appropriate, but different groups of therapists, they generate some common correlates (column 1 compared with column 4).

We have already noted that there is no assurance that "chaining" correlations will give dependable conclusions. Such findings are much in need of replication. But the similar coefficients in table 19 constitute a replication of themselves.

One might ask whether the similarity of columns 1 and 4 simply reflects the fact that some of the original Phipps residents from whom the predictors are derived are included in the present data. It is important to understand that Phipps graduates included in table 19 are classified according to their present settings, not according to their original drug-prescribing behavior. After all, most of the 35 doctors who did not prescribe drugs at Phipps did not have the option; there were no drugs. Further, it will be recalled that among the Phipps doctors who prescribed drugs for half or more of their schizophrenic patients, only a few returned the PTQ. The distribution of PTQ respondents shown in table 20 reveals that the Phipps therapists are not distributed in table 19 according to their classification in the original analyses, and therefore cannot account for the similarity of columns 1 and 4 in table 19.

Assuming that the similarity of columns 1 and 4 is not an artifact, and I can find no evidence that it is, the findings suggest that, regardless of whether drugs are prescribed, therapists who are effective with schizophrenics have a low need for closure (tolerance of complexity), are tolerant of ambivalence, and of regression. All of this suggests that they are tolerant of schizophrenic behavior. In addition they are interested in other people's feelings and they prefer to make their own decisions. These findings are consistent with the earlier findings of Whitehorn and Betz that the A therapist actively participates with and tries to understand his patient rather than concentrating on the reduction of symptoms (see page 16 above).

Table 19.—Personality Correlates of Two A-B Predictors for Schizophrenics Among Nonhospital and Hospital Psychiatrists

(Pearsonian r's)

	PTQ Personality Scale and Appendix 4 Table Number	ABDRUG (Drug-associated)		TOTL S (Drug-free)	
		Hospital	Non-hospital	Hospital	Non-hospital
31	Need for Closure	—.49	—.18	—.07	—.41
32	Regression in the Service of the Ego	.33	.17	—.10	.41
33	Empathic Interest	.43	.19	—.18	.33
34	Work Ethic	.18	—.03	—.05	—.41
35	Need for Order	.11	—.19	.02	—.41
36	Tolerance of the Unrealistic Experience	.14	0	—.24	.32
37	Tolerance of Ambivalence	.32	—.10	—.08	.29
38	Preference for Decision Making	.46	.26	.17	.30
39	High Standards	—.06	.07	.20	.32
40	Remorse	—.05	—.11	.02	—.27
41	Antidemocratic	—.06	—.17	.11	—.15
42	Individualism	.29	.31	—.14	.13
43	Deference Anxiety	.24	.14	.09	.17
44	Nurturance Anxiety	.05	—.02	.04	.22
45	Science	.04	.18	.20	—.08
46	Preference for Intellectual Challenge	.33	.30	0	—.03
47	Extroversion	.22	.28	.35	.23
	Number of cases	43	46	43	46

Single underlining indicates that the correlation is significantly different from zero at the .05 level, two-tail; double underlining, .01 level.

Table 20.—PTQ Respondents, Hospital and Nonhospital

Group	43 Hospital	46 Nonhospital
Former Phipps Clinic Residents:		
Of the 35 who prescribed no drugs for any of their schizophrenic patients (criterion group for *TOTL S*)	10	13
Of the 12 who completed their residencies in 1959 or later and who prescribed drugs for half or more of their schizophrenic patients (criterion group for *ABDRUG*)	2	1
Other psychiatrists and psychiatric residents	31	32

Chapter V

The Third Study—Juvenile Delinquents

James K. Dent and George A. Furse

The opportunity to do research in the Loysville (Pa.) Youth Development Center opened new vistas, including the possibility of a self-contained study yielding more direct interpretation than is possible for "correlates-of-correlates" analyses. Although this study involved processing a large amount of data, it should be regarded as a pilot study because of the experimental nature of the methods employed.

The study had the following general purposes:

(1) Developing methods of measuring *therapeutic influence in a milieu setting.*
(2) Exploring characteristics of therapists who are effective with the *personality disorders,* thus extending the range of disorders investigated.
(3) Replicating findings for institutionalized *neurotics.*

Among juvenile delinquents there is usually a sizeable minority labeled neurotic. While it was recognized that these neurotics may well be different from the Phipps Clinic neurotics, still the possiblity of replication was carefully considered and planned. At the same time it was recognized that methods would have to be very different in a setting like Loysville. Therefore, the primary objective was developing methods for a milieu setting. Secondarily, we hoped to extend this research area to the personality disorders. Finally, replication of earlier findings for neurotics was hoped for, but hardly expected.

The Loysville Youth Development Center

The Loysville Y.D.C. is located in what had originally been established as an orphanage for the children of Civil War casualties. In 1964 the property was acquired by the Commonwealth of Pennsylvania and the first youths were admitted in that year. There are six cottages, the youths being assigned by age, except that in recent years one of the cottages has been a diagnostic center. Here youths of all ages may stay up to 60 days, most of them being returned to the courts for further disposition.

Each cottage has a supervisor and six staff members, of which three or four are counselors and the remainder, house parents. The "organizational level" of the 51 "helpers" in this study ranges as follows:

House Parent 1 (2)
House Parent 2 (3)
House Parent 3 (8)
Counselor Trainee (2)
Counselor I (22)
Counselor II (10)
Director (4)

Only those directors who have significant contact with youths are included. Most of the helpers had no college education. However, most of them had had years of experience with delinquent boys.

Youths, ages 12 to 17 inclusive, are assigned to the Center at the discretion of the county courts, and the various judges do not use uniform criteria for this purpose. There has always been a long waiting list. The characteristics of the Center determine in part, its clientele. There is no fence. The Center is located in a beautiful countryside, as beautiful as can be found anywhere. It has a modern swimming pool. And the staff work very hard to make the program attractive as well as rehabilitative.

Director John R. Williams chuckles when he says: "I ask them, if they are planning to leave,

that they please stop by my home on the way out and let me know they are going."

The clientele, therefore, include a disproportionately greater number of mild cases than would be found in some institutions for delinquents. Still, the possibility of being sent to another institution, not so attractive, must serve to restrain, since there are a number of severely disturbed and disordered youths. The following is from a report of a survey of county probation officers conducted by Loysville:

> In general, the boy committed to Loysville is better labeled dependent-neglected rather than delinquent. Overall, the students' problems are centered in the home situation which accompanying school problems and the boy is seen by probation officers as having the potential to be helped. Instead of severe delinquency there are emotional problems. For the most part, the youngster tends to be younger than those placed in other institutions and, many times, is in need of long-term service. When asked for the general characteristics of those boys whose placement at Loysville was felt to be successful, the above, with minor alterations was brought out. Loysville was felt to have its most success with the less sophisticated, less agressive delinquent, having minor emotional problems, and possessing a relative degree of immaturity. The youngster is pliable, passive, suggestible and has the potential to develop relationships. On the other hand, boys whose placement was felt to be unsuccessful could be placed at the other end of the scale. This youngster was seen as being an aggressive, sophisticated, hard-core delinquent with a poor attitude. Character disorders, security risks and boys with prior institutional experience were also seen as doing poorly in the program at Loysville. (Erikson, mimeo)

It is quite likely, of course, that the hard-core delinquent is seen as doing poorly in the programs of all kinds of institutions. Nevertheless, it is clear that, while there is a range of severities at Loysville, the problems are not so severe on the average as at other institutions.

Study Design

It is not possible to review here the immense amount of research that has been done on the diagnosis and treatment of juvenile delinquency. Still, some description of the state of the art is necessary as a setting for our own work.

It has been generally recognized for decades that "juvenile delinquency" is a rubric or chapter heading rather than a classification, and that within the rubric are a wide variety of problems, maladaptations, and/or disorders. There is now a large amount of excellent empirical work attempting to subdivide "delinquency." Most of it involves the empirical clustering of specific problem behaviors. Some studies also include in the clusters certain factors that are considered to have significance as causes of delinquency (e.g., loss of a parent). Some of the work also rests on theoretical consideration, for example, the "maturity levels" of Marguerite Warren (1966). Other significant analyses are those of Jenkins and Hewitt (1944), Jenkins (1964), and Quay and Parsons (1971).

These various studies do not yield identical diagnostic groups. The number of groups ranges from three to nine. A study by Kobayashi, Mizushima, and Shinohara (1967) illustrates the hierarchial and overlapping nature of the empirical clusters of problem behaviors. But in these various studies the following groups tend to be found again and again:

(1) the situational delinquent (not found in some institutions that deal only with severe problems)
(2) the cultural identifier, socialized to a subculture
(3) the neurotic
(4) the conformist
(5) the manipulator or sociopath
(6) the asocial

For the present research we chose to use such a schema, one promulgated by the Commonwealth of Pennsylvania Juvenile Court Judges' Commission (see appendix 10).

Not only has there been considerable work in diagnosis, there has also been considerable attention to differential treatment and the matching of youths and "helpers." Much of this work appears to depend upon professional judgment (e.g., Gerard, 1969; Palmer, 1967). One study compares outcomes for different types of offenders in different types of settings (Warren, 1969). There are two studies where youths were matched with helpers on *a priori* grounds and compared with youths randomly

assi, ned (Palmer, 1973; Ingram, 1970). In both cases, the matched group showed a better outcome. We could find no studies aimed at finding what characteristics of helpers are desirable in the treatment of particular kinds of offenders. The present study, then, modeled as it is on the Whitehorn-Betz approach, appears to be breaking new ground in delinquency.

In summary, our study design required a diagnosis for each youth, a measure of improvement, and the personality characteristics of his helper(s). The phrase, "of helper(s)," conceals an enormous problem. In a setting where a group of clients is exposed to a group of helpers, how does one know who helped whom? We turn now to the problem of therapeutic influence in a milieu setting.

The Problem of Therapeutic Influence in a Milieu Setting

In any setting where two or more helpers mingle with two or more clients there is a problem in assessing which personality affected which outcome. The problem is more common than it appears to be at first glance. It applies not only to milieu therapy, but to any therapy involving more than one therapist. Moreover, even when the client is assigned to a particular therapist, if there is a milieu, it is inappropriate to assume that the assigned therapist is *the* therapist unless the assigned therapist actually does spend a great deal of time with the client (as at the Phipps Clinic).

The processes in a milieu that determine who interacts with whom are not well understood, but it is a reasonable assumption that these processes are *not* random. This imposes a further burden on understanding how much help each client got from whom. As we shall see, at Loysville there is a small but significant tendency for those at higher levels in the organization to take on the tougher cases. There is also a tendency for the tougher cases to show less improvement. Thus the assignment processes are systematically biased. We anticipated such confounding and decided that we needed to know something about the severity of the disorder in addition to diagnosis and improvement.[1]

To the problem of assigning youths to helpers, a number of solutions were considered. For example, serious consideration was given to asking the youths themselves who they felt had helped them. It would require considerable resources to find these youths who came from all over the Commonwealth and had already left Loysville. Because our resources were limited, we chose to ask the helpers whom they had worked with, i.e., to assign youths according to helpers' reports of contact. Since helpers had some understanding of the nature of the study, one might wonder if they would "claim" those youths who showed the greatest improvement. In fact, there is a tendency for the opposite to occur. The less the youth improved, the more the helpers reported having a lot of personal contact with him.

It is in this area of assigning youths to helpers that this present study is most appropriately viewed as a pilot study. While our methods produce findings which have face validity, only in replication can their operational validity be established. In the present findings there is replication of the Phipps findings for neurotics.

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[1] In the present study, the greater the severity of a patient's problem the less the improvement. It is not uncommon to find greater severity associated with greater improvement. The reasons for the varied findings are not known, but it may be useful to speculate. Intuitively, when we view the range of human problems, the more severe ones are more intractable. Why then would more improvement be found among more severe cases? If we are dealing with a particular kind of problem (e.g., schizophrenia) and our measure of severity is taken at a nonrandom point in the episode, the improvement might well be positively related to severity of symptoms. If our measure of severity is taken at a time when the person presents himself, or is presented for treatment, then it is reasonable to assume that it was taken at a high point in an episode, on the average at least, and that some improvement from that high point is likely simply by virtue of the episodic nature of such disorders. If, however, we measure severity at "administrative" convenience (at the transfer between hospitals, or between jail and a prison) then we might expect the measure to be less related to the episodic phenomena. Such a measure would more likely reflect the intuitive expectation that more severe problems show less improvement. Admission to Loysville is more administrative than episodic and we found that the greater the severity the less the improvement.

Youth Measures

A list of names was compiled of youths admitted to Loysville Y.D.C. between March 3, 1967, and March 26, 1974, who remained at the Center at least a month, and who had been discharged at the time the study began in May 1974. This list of 593 names was in order of admission and indicated the date admitted and the date closed. The list was presented to each of five "independent judges" (teachers in the Center School) and to each of 51 "helpers," defined below. Judges and helpers were asked to indicate for each youth whether their personal contact with this youth had been "very little," "some," or "a lot." They were asked to indicate for those youths with whom they had had some contact their answer to the following question: When we first became acquainted I regarded this boy's behavioral and/or emotional problems as: "Mild," "Moderate," "Serious." (The forms for the judges included only two columns: "Moderate" and "Serious.")

Later, judges and helpers were given a list of those youths with whom he had had *a lot* of personal contact and asked the following question: When I saw this boy at discharge I considered his attitude, behavior and/or emotional response as "Not Improved," "Somewhat Improved," "Highly Improved." They were also asked to make a diagnosis.

The diagnostic system in the report of the Juvenile Court Judges' Commission had only recently been released. Part of this report is extracted in appendix 10. The helpers at Loysville were not acquainted with the report or the diagnostic system it contained. The report was considered too bulky for their use. Instead they were furnished the following diagnostic descriptions:

1.	Neurotic Delinquent:	This individual's offense was against property or person. His prior delinquent behavior was of the same nature. He constituted a possible threat to self and/or community because of his own anxiety. His family structure appeared as if the parents were childlike and he himself was expected to be adult. His attitude to his then current situation was that he denied the self image of being a delinquent. He was anxious and confused. In regard of school adjustment unusual behaviors were noted in the records. Regarding his peer group relationships he was probably a loner who may have selected a few friends.
2.	Situational Delinquent:	This individual's offense was probably a delinquent act, an accident, or caused by the situation. He probably had no prior delinquent behavior. He constituted no threat to self or community. His family structure was probably acceptable. His attitude toward his then current situation was realistic and regretful. His emotional adjustment and control were probably sound. His school adjustment probably good, and his peer group relationships probably acceptable.
3.	Subcultural Identifier:	This individual's offense probably involved property not necessarily for personal gain. His prior delinquent behaviors had all been accepted by his peer group. He may have constituted a threat to others. As regards family structure, his parents were probably suspicious and distrustful. His attitude toward his then current situation was that he believed delinquent behavior to be acceptable. There were no obvious problems as regards emotional control and adjustment. In school adjustment, he was identified as acting out and associating with "bad" youngsters. His peer group relationships were intense.
4.	Antisocial Manipulator:	This individual's offense involved a property offense he thought he could get away with. His prior delinquent behavior involved property offenses involving personal gains. He was a leader who could be a threat to others. his parents were inconsistent in providing love and rejection. His atti-

tude toward his then current situation was that he justified his behavior as warranted and reasonable. As regards emotional adjustment and control, he displayed emotional isolation. He had a school history of using classmates and being the instigator. In his peer group relationships, he used others and saw them as suckers.

5. Conformist: This individual's offense was a personal or property offense in which the client was a follower involved with others. His prior delinquent behavior involved being with others and being identified as a follower. He constituted a possible threat through peer group pressure to himself or the community. He had experienced weak parental discipline or indifference. His attitude toward his then current situation was that he admitted responsibility for his behavior. His behavior was determined by a need for self approval. In school adjustment, he had a history of attention-seeking behavior but performed well when observed. As regards peer group relationships, there were no close relationships but attempts were made to establish them.

6. Asocial: This individual's offense was against person or property and probably committed alone. His prior delinquent behavior was constituted of impulsive hostile acts which may have been violent. His explosive behavior made him a threat to self and/or community. He had rejecting parents with possible physical cruelty. His attitude toward his then current situation was that he denied responsibility and projected blame onto the world. As regards emotional adjustment and control there was no impulse control and there were infantile demands. In his school adjustments he had a history of acting out of uncontrollable rage. In his peer group relationships, he was a loner and peers saw him as strange.

In table 21 it can be seen that for 289 youths, there is no agreed diagnosis. In some of these cases there are undoubtedly *bona fide* "diagnostic problems," e.g., youths with multiple problems, or with problems not adequately covered by the diagnostic schema. It is likely, however, that if helpers could be trained in the schema, the number of disagreements could be reduced.

"Agreed diagnosis" generally meant majority agreement among the diagnoses available for each youth. However, there is a tendency to use "situational" as a residual diagnosis. Many of the Loysville staff are conscious of the pejorative nature of diagnoses. When in doubt they chose the mildest label. Accordingly, we required that there be complete agreement for the "situational" diagnosis to be applied.

In addition to the diagnoses, the average youth has improvement and severity ratings from judges and improvement and severity ratings from helpers.[2] (The numbers "1", "2", and "3" are assigned to the categories, "mild," "moderate," and "serious" for severity, and to "not improved," "somewhat improved," and "highly improved.") For improvement, all ratings for a youth are averaged. For severity, the rating format for judges and helpers was not identical (as noted on page 57) so we have two severity averages: helpers' and judges'.

[2]In fact, helpers did not rate all youths with whom they had a lot of personal contact. To cut down the amount of rating, diagnosis, etc. they were asked to rate only a sample of such boys. The result is that the "contamination of criterion" is less than would be expected. On the average, a helper's rating of a boy he claimed is only about one-seventh of the youth's ratings. This contamination could be removed but only at considerable cost. It is doubtful that the results would be materially affected.

In addition to the improvement criterion, we had measures of recidivism, a commonly used objective variable. What is needed is not recidivism but change in recidivism, a much more difficult measurement problem. Presumably, a youth who was originally apprehended for violence, and who now is picked up for petty stealing, has improved. We were not able to get satisfactory data for change in recidivism.

Table 21.—Diagnosis, Improvement, and Severity of Youths Included in Analyses

Diagnosis	No. of Youths	No. of Helpers "Claiming" These Youths	Average Improvement Scores (Helpers and Judges)	Average Severity Scores (Helpers)*
2. Situational	88	37	2.35	1.61
3. Subcultural	46	41	1.92	2.10
5. Conformist	14	29	1.93	2.21
4. Manipulator	42	45	1.72	2.20
1. Neurotic	27	35	1.65	2.65
6. Asocial	18	29	1.56	2.64
Subtotal	235 Youths with diagnoses			
	289 No agreed diagnosis			
	8 Readmissions			
	61 Youths not "claimed"			
Subtotal	593 Youths on Rating Lists			
	353 Did not stay 30 days			
Total	946 Youths on the rolls, March 3, 1967 to March 26, 1974			

* Because of differences in the rating forms, severity ratings for judges and helpers cannot be pooled as they are for improvement. Judges' severity ratings show a similar negative correlation with improvement.

From these measures we derived "adjusted improvement." Using multiple correlation, a least-squares equation was derived which related improvement scores to judges' and helpers' severity ratings. Using this equation, predicted improvement was computed for each youth. This predicted improvement was subtracted from actual improvement (plus a constant to eliminate negative numbers) thus yielding an "adjusted improvement" score, i.e., improvement adjusted for severity. There is no way of knowing whether such an adjustment allows for the effects of nonrandom assignment. However, it is fair to say that the

adjustment allows for the aspect of assignment which appears to be most related to the youth's improvement.

Finally, the process of adjusting improvement was done seperately and *within* each diagnostic group. This was necessary since most analyses are done for each diagnosis separately.

The diagnostic groups in table 21 are arranged roughly from least to most severe. The inverse relation between improvement and severity can be seen clearly. Also it can be seen that the more severe cases tend to be "claimed" by more helpers.

The average length of stay at Loysville for the youths on the list was 462 days (std. dev. = 349). For those with agreed diagnoses, it was somewhat longer, 526 days (std. dev. = 255). Length of stay declines substantially over the period covered by this study ($r = -.69$, $p < .001$). Such declines are common in many institutions during this time period and probably reflect administrative, not rehabilitative reasons. Length of stay is not related to improvement ($r = -.02$) but it is correlated with helpers' severity rating ($r = .17$, $p < .01$).

The average age of the youths is 15.3 years (std. dev. = 1.4). There is a very slight tendency for younger boys to be considered more disturbed, stay longer, and show less improvement. This positive relationship between improvement and age does not hold for any diagnostic group except the neuroses.

These various youth measures (averages for each youth) will not be the subject of further direct analyses. Rather they will be accumulated and averaged again for the youths claimed by each helper.

Helper Measures

For each helper we averaged the improvement scores of the youths with whom he claimed to have a lot of personal contact. Table 21 shows that many youths are claimed by more than one helper. While this is to be expected, it presents some formidable statistical problems alluded to in appendix 1. For purposes of the present analyses, if a youth is claimed by two helpers, he is included in both helpers' average improvement scores. It is assumed that his improvement was influenced by all the helpers who said they had a lot of personal contact with him.[3]

The improvement scores adjusted for severity, and averaged across all the youths each helper claimed and across the youths each claimed within each diagnostic group, are used as performance criteria which can be related to the helpers' personality measures.

But before we get into personality measures, let us look at the intercorrelation of the helpers' improvement scores. These are presented in table 22 and they address the question: To what extent is a helper who is successful with one diagnostic group also successful with another? These data bear on the issue of the generalist vs. the differential hypothesis. Only one of the correlations is significant, and that one, .45 between Situational and Subcultural, concerns the two mildest problem groups.[4] None of the others are significant at even the .10 level. If we were to present adjusted improvement scores in table 22 the results would be essentially unchanged. There is not much support for the generalist hypothesis here.

Relevant, perhaps, is our definition of "helper": any member of the program staff between the years 1967 and 1974, who had served for *at least a year* during that period and who stated that he had had a lot of personal contact with youths. The requirement that he stayed at least a year probably eliminated some staff members who were not suited to this kind of work. If such are included in a study, the generalist hypothesis might get more support. Specifically, if there are some helpers in a

[3]Presumably, if a helper who was successful with a particular diagnostic group consistently worked with the same youths as another helper not so successful, both helpers' improvement scores are distorted in opposite directions, the successful helpers' average being pulled down by the efforts of the less successful, and the latters' scores being helped by the former. There is little evidence that such consistent pairings were frequent. But note that all such distortions are toward the mean, resulting in attenuation of the criterion (see page 61), and lowered possibility of finding significant relationships. In other words, the error introduced by this procedure, like most random error, is "conservative;" it does not produce invalid findings.

[4]This correlation is strong enough that it remains significant after allowing for the fact that we sorted over 15 correlations to find it (Bonferoni's t).

Table 22.—Intercorrelation of Helper Improvement Scores for Six Diagnostic Groups

(Pearsonian r's)

Average Helper Improvement Score for	Average Helper Improvement Score for 3 Subcultural	5 Conformist	4 Manipulator	1 Neurotic	6 Asocial
2 Situational	.45	.25	.22	—.16	.07
3 Subcultural		.24	.22	—.12	.10
5 Conformist			—.03	.12	—.20
4 Manipulator				.12	.17
1 Neurotic					—.20

The number of cases varies within this table since not all helpers claimed youths in a particular diagnostic group. The only correlation significant beyond the .10 level is the first one (.45, N = 33, beyond the .01 level).

study who do not succeed with any of their clients, we would find positive intercorrelations for various diagnostic groups and this would tend to be consistent with the generalist hypothesis.

Statistically this phenomenon is called "attenuation of the criterion" and is illustrated graphically in figure 2. In this figure there is an overall correlation, but when those who left the field before a year passed are excluded, the correlation is lost. Figure 2 suggests the possibility that a correlation between criteria will be found among inexperienced therapists (□'s *and* O's) but not among experienced ones (□'s only).

The 51 Loysville helpers include 20 no longer on the staff, but these 20 had been on the staff for at least a year during the period covered by the study. These 20 former staff members are, for the most part, either retired or working in other parts of the Pennsylvania correctional system. Most of them continue to live in the area surrounding Loysville. For these 20, data were collected by visiting them in their homes, usually requiring several trips. For two of them the data were collected by mail. A number of analyses were conducted separately for the 31 at Loysville and the 20 who left. The correlation matrices for the two groups are not really very different and the two groups are combined in the findings presented here.

Helpers' Personalities

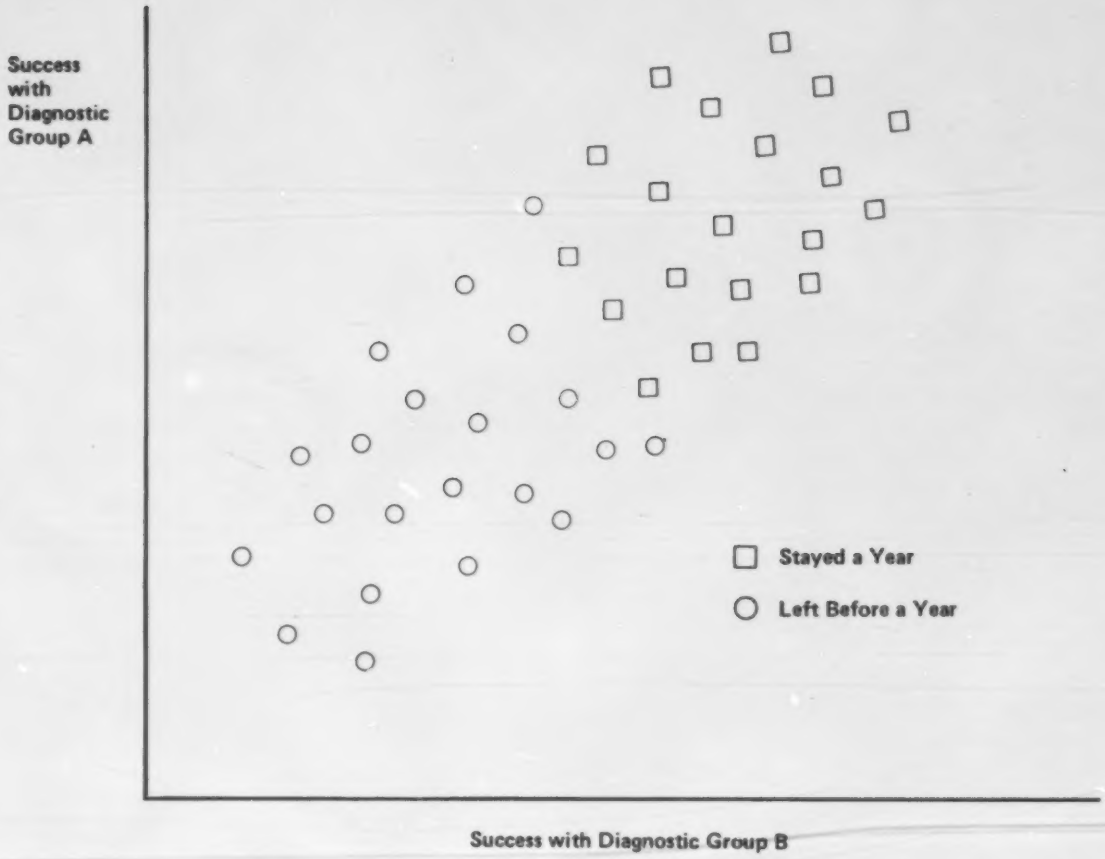
Helpers were asked to fill out the PTQ, the Strong Vocational Interest Blank (Form M, 400 items), and the Quay Correctional Preference Survey. The first two provided continuity with the studies in chapters III and IV. The Quay Correctional Preference Survey was the only instrument we could find which was specifically designed to measure treatment ideologies for delinquents.

With respect to the PTQ, it was our purpose to correlate the personality scales and A-B predictors with helpers' improvement scores. We planned the SVIB as an item pool for item analysis just as Whitehorn and Betz had used it. We also planned to use the Quay instrument as an item pool for item analyses, these items being oriented toward specific treatments for delinquents.

The reasons for using the Quay instrument in this way may require some elaboration. The Correctional Preference Survey consists of 15

Figure 2

HYPOTHETICAL CORRELATION BETWEEN IMPROVEMENT SCORES FOR TWO DIAGNOSTIC GROUPS SHOWING POSSIBLE EFFECT OF ELIMINATING UNSUCCESSFUL HELPERS



items for each of four scales, the four scales being designed to predict helpers' success with each of four Quay diagnostic groups:

(1) Inadequate-Immature
(2) Neurotic-Disturbed
(3) Unsocialized Psychopathic
(4) Socialized-Subcultural

The last three of these would seem to correspond with our Neurotic, Manipulator, and Subcultural classifications, but the correspondence is by no means very exact. Moreover, the items appear to have been written on the basis of clinical experience and judgement rather than from any empirical test that they actually work for their intended groups. Our concern was with such an empirical test for each item, using a slightly different diagnostic schema. (We will also present findings for the four Quay scales. Ingram, 1970, showed that matching based on the scales was indeed effective.) Our concern is to try to determine empirically the treatment philosophies of helpers effective with different kinds of delinquents.

It table 21 it can be seen that there were only 14 youths with an agreed diagnosis of "Conformist" and 18, "Asocial." These numbers of cases seem inadequate on which to rest an analysis. But we did conduct item analyses on the other four diagnostic groups even though some might argue that the 27 Neurotics are also an inadequate base.

For the PTQ personality analyses we present all six groups in table 23. There it can be seen that the *number of scales* which correlate significantly with helpers' improvement scores is indeed related to the number of youths in the base of those scores, there being no correlates at all for the Asocial group and only one each for the Conformist and Neurotic groups. The interesting thing about these single correlates is that they will be seen by many clinicians as "reasonable." The Conformist youth, who is trying so hard for group acceptance that he will do anything he thinks will get it, is best served by a helper who has a high regard for individualism and resists social pressure. The Neurotic youth is best served by a helper who has low "Remorse" (items derived from Child's "Supergo" scale). One other "reasonable" relationship should be noted. Most of the "Subcultural" youths are black. It is eminently reasonable that they are best served by helpers low on the antidemocratic personality, most of these items being from the F Scale, an indirect measure of ethnocentrism.

These "reasonable" findings, the "bootstraps" of exploration, tend to support the idea that our methods have some validity and that even with a small amount of data, meaningful results emerge.

There are other meaningful results. Table 24 presents the Phipps Clinic A-B Predictors and Scales in relation to Helper Improvement Scores at Loysville. While there are few significant findings in table 24, there are findings in the one area where we expected them, namely: the Phipps Neurotic Predictors and Scales do predict the Loysville helpers' success with Neurotics. Underlining in table 24 is on the basis of two-tail tests. One-tail tests would certainly be appropriate for the Neurotic youths. On this reasoning, NSOLVE is also significantly related to helpers' success rates. Considering the differences in treatment settings, in research methods, in "patients," and in "therapists" between the Loysville YDC and the Phipps Clinic, this replication could hardly have been predicted with confidence.

Details of the item analysis are presented in table 25. The top half shows items which discriminate success with Neurotics at Loysville which are not included in the N Predictor derived from item analyses of the Phipps "percent of neurotics improved." It can be seen that in the two halves of the table there are only three significant items in common ("Geography," "Algebra," and "conceited people") and that only two of these are in the N Predictor. However, all of the items in the N Predictor carry the appropriate sign in the Loysville analysis, and they therefore "add up" to a significant predictor. While some of the NSOLVE items are weak in the Loysville analysis, "Calculus" certainly fits this dimension and is significant for the Loysville helpers. Thus the NSOLVE scale as well as the N Predictor gets support in this item analysis.

Tables 26, 27, and 28 present SVIB items that discriminate helpers' success with Manipulators, Subcultural Identifiers, and Situationals respectively. Tables 29 and 30 present analyses for the items of the Quay Correctional Preference Survey. Interpretation of these tables is considered in the next chapter which brings together the various findings in the last three chapters.

Table 23.—Correlation of Personality Scales With Helpers' Improvement Scores for Six Diagnostic Groups

(Pearsonian r's)

Personality Variable	All Diagnoses		Situational		Subcultural		Conformist		Manipulator		Neurotic		Asocial	
App. 4 Table Number	MPRVMT	Adjstd	MPRV 2	Adjstd	MPRV 3	Adjstd	MPRV 5	Adjstd	MPRV 4	Adjstd	MPRV 1	Adjstd	MPRV 6	Adjstd
31 Need for Closure	−.036	−.024	−.073	−.017	−.060	.060	−.315	−.303	.116	.170	−.039	.007	.099	−.010
32 Regression in the Service of the Ego	−.168	.019	.058	−.018	.101	.091	−.008	−.087	−.209	−.276	.169	.138	−.006	.084
33 Empathic Interest	.163	.212	−.008	−.036	.224	.153	.073	.050	.039	−.054	.298	.239	−.012	.028
34 Work Ethic	.106	.009	.154	.152	−.298	−.307	−.079	−.070	.154	.244	.030	−.001	−.238	−.324
35 Need for Order	.082	.073	−.099	−.078	−.141	−.079	−.144	−.077	.167	.197	−.086	−.043	.046	−.075
36 Tolerance of the Unreal Experience	−.165	−.002	.032	−.023	.245	.228	.014	−.007	−.230	−.339	.192	.182	−.199	−.167
37 Tolerance of Ambivalence	−.029	.158	.004	.016	.340	.263	.181	.131	−.096	−.080	.290	.255	.115	.181
38 Preference for Decision Making	−.196	−.094	−.255	−.304	−.088	−.093	.029	−.045	−.251	−.308	.294	.294	−.191	.025
39 High Personal Standards	.007	−.140	−.452	−.513	−.033	−.011	.101	.085	−.134	−.167	.145	.078	−.024	−.041
40 Remorse	−.046	−.079	−.342	−.369	.202	.309	−.024	−.101	−.079	−.171	−.289	−.332	.144	.137
41 Antidemocratic	−.039	−.104	−.072	−.019	−.422	−.399	−.362	−.303	.168	.275	−.127	−.097	.113	.096
42 Individualism	−.043	.008	.041	−.002	.144	.193	.577	.438	−.185	−.183	.172	.130	.085	.119
43 Deference Anxiety	−.130	−.140	−.056	−.083	−.232	−.211	−.326	−.269	−.076	−.171	.063	.096	.028	.103
44 Nurturance Anxiety	−.020	−.104	−.165	−.224	.045	−.049	−.200	−.145	−.251	−.336	.233	.196	−.235	−.088
45 Science and Moral Values	−.126	−.007	−.042	.041	.027	.080	−.046	−.105	−.010	−.025	−.228	−.168	.283	.312
46 Preference for Intellectual Challenge	.001	.108	.099	.080	−.131	−.180	.438	.278	−.101	−.114	.178	.113	−.183	−.279
47 Extroversion	.148	.036	.040	−.056	.080	.066	.280	.183	−.342	−.376	.048	−.049	−.128	−.117
Quay 1 (Inadequate-Immature)	.218	.314	.529	.508	.324	.321	.110	.092	−.016	.054	−.189	−.167	.083	−.053
Quay 2 (Neurotic-Disturbed)	.151	.085	.087	.078	−.085	−.101	.061	.025	−.207	−.177	.105	.079	−.128	−.259
Quay 3 (Unsocialized-Psychopath)	.162	.195	.094	.095	.046	.013	−.204	−.119	.161	.180	−.030	−.054	.144	.216
Quay 4 (Socialized-Subcultural)	−.017	−.104	−.321	−.343	−.227	−.182	−.243	−.305	−.103	−.113	.119	.119	.032	.141
Organizational Level	−.306	−.179	−.275	−.259	.123	.131	.035	.086	−.250	−.273	.006	−.012	.021	.055
Number of Helpers	51	51	37	37	41	41	29	29	45	45	35	35	29	29

Single underlining indicates that r is significantly different from zero at .05, two-tail; double underlining at .01.

Table 24.—Correlation of A-B Predictors With Helpers' Improvement Scores for Six Diagnostic Groups

(Pearsonian r's)

A-B Predictor and Table Number		All Diagnoses		Situational		Subcultural		Conformist		Manipulator		Neurotic		Asocial	
		MPRVMT	Adjstd	MPRV 2	Adjstd	MPRV 3	Adjstd	MPRV 5	Adjstd	MPRV 4	Adjstd	MPRV 1	Adjstd	MPRV 6	Adjstd
1	W-B 22	−.156	−.275	−.293	−.349	−.144	−.169	−.049	−.019	.025	−.020	.130	.118	−.325	−.220
	TOTL S	−.110	−.188	−.128	−.217	−.237	−.292	.196	.190	−.146	−.249	.066	.014	−.226	−.193
3*	S	−.129	−.150	−.022	−.111	−.230	−.250	.201	.153	−.166	−.244	−.117	−.158	.026	.025
31	SXPRSA	.065	.044	−.002	−.043	−.403	−.416	.021	.085	.118	.114	.154	.120	.201	.162
31	SXPRSS	.029	−.053	−.007	−.070	.000	.022	.214	.107	−.048	−.090	−.057	−.038	−.114	−.052
31	SQUEST	−.270	−.219	−.153	−.215	−.092	−.079	.155	.213	−.141	−.161	−.229	−.229	.027	.094
30	SD	−.023	−.128	−.202	−.245	−.125	−.193	.076	.135	−.036	−.114	.271	.229	−.418	−.381
	TOTL D	−.095	−.118	−.161	−.224	.054	.033	.157	.228	−.070	−.158	.178	.134	−.368	−.264
32	D	−.101	−.049	−.119	−.174	.265	.266	.295	.308	−.063	−.146	.128	.105	−.184	−.024
32	DBUSNS	−.127	−.105	−.190	−.232	.107	.105	.007	.108	−.043	−.091	.000	−.030	−.029	.082
30	DN	−.087	−.103	.008	−.033	−.152	−.110	−.175	−.060	−.055	−.067	−.084	−.122	−.290	−.241
	TOTL N	.158	.005	−.111	−.180	−.060	−.096	−.178	.001	−.038	−.114	.305	.259	−.294	−.270
33	N	.175	−.001	−.159	−.231	−.043	−.098	−.144	−.009	−.053	−.149	.365	.326	−.285	−.249
33	NSOLVE	.161	−.023	−.188	−.207	−.047	−.086	−.122	.074	.022	−.008	.330	.307	−.360	−.283
33	NQEST1	.093	.094	−.078	−.164	.063	.046	−.078	−.095	−.115	−.231	.336	.279	.073	.042
33	NQEST2	−.080	−.048	.062	.067	.079	.173	−.258	−.189	.060	.129	−.240	−.235	−.042	−.066
No. of Helpers		51	51	37	37	41	41	29	29	45	45	35	35	29	29

Single underlining indicates that r is significantly different from zero at .05, two tail; double underlining, at .01. Variables in the heading are described on pages 59-60. Variables in the stub are described on pages 35-45.

Table 25.—SVIB Items Correlated With Helpers Adjusted Improvement Scores for Youths Who Are *Neurotics*

N = 35

Item Number SVIB	PTQ	Item		Gamma	p
5		Artist		.42	.04
72		Politician		.47	.01
85		Secretary, Chamber of Commerce		.44	.03
86		Secret Service Man		.48	.02
92		Stock Broker		.49	.01
97		Undertaker		.51	.02
107		Calculus		—.36	.05
113		Geography*		.44	.05
143		Boxing		.47	.01
163		Art galleries		.43	.03
182		Educational movies		—.43	.05
232		Looking at a collection of rare laces		.48	.05
292		Steadiness and permanence of work		—.39	.04
366		Am quite sure of myself		.61	.01
		"N" Predictor Items (see table 33)			
21	3-33	Cashier in a bank	NQEST1	—.10	.62
101	3-35	Algebra	NSOLVE	—.39	.05
115	3-57	Geometry	NSOLVE	—.28	.14
119	3-58	Literature	NQEST1	.24	.24
148	3-61	Solving mechanical puzzles	NSOLVE	—.17	.36
149	3-62	Performing sleight-of-hand tricks	NSOLVE	—.12	.56
173	3-66	Detective stories	NSOLVE	00	.99
185	3-68	Making a radio set	NSOLVE	—.28	.12
186	3-69	Repairing a clock	NSOLVE	—.23	.20
269	4-5	People who talk very slowly	NQEST2	.11	.60
353	2-35	Reading a book vs. going to movies (B)		00	.99
359	3-23	Jealous vs. conceited people (A)	NQEST1	—.41	.03
386	3-24	Smooth out tangles and disagreements between people		—.10	.76

(A) The "A" therapist prefers the second choice.
(B) The "B" therapist prefers the second choice.
* This item was also predictive of success with neurotics at the Phipps Clinic and could have been included in the N Predictor if it had been included in the PTQ.

Table 26.—SVIB Items Correlated With Helpers' Adjusted Improvement Scores for Youth Who Are *Manipulators*

N = 45

SVIB No.	Item	Gamma	p
5	Artist	—.34	.05
9	Author of novel	—.70	.0002
27	College Professor	—.34	.05
31	Editor	—.45	.01
40	Foreign Correspondent	—.43	.01
42	Hotel Keeper or Manager	—.46	.01
57	Magazine Writer	—.49	.01
62	Musician	—.36	.05
65	Office Manager	—.38	.02
66	Orchestra Conductor	—.50	.01
69	Physician	—.36	.04
78	Reporter, general	—.35	.04
93	Surgeon	—.40	.02
112	English Composition	—.43	.01
119	Literature	—.38	.03
124	Music	—.41	.01
126	Philosophy	—.43	.02
129	Psychology	—.40	.04
137	Golf	—.36	.05
155	Excursions	—.63	.008
156	Smokers	—.45	.007
167	Symphony Concerts	—.45	.01
176	"New Republic"	—.37	.04
181	"Atlantic Monthly"	—.40	.01
184	Social problem movies	—.60	.05
190	Operating Machinery	.40	.04
191	Handling horses	.46	.02
195	Arguments	—.50	.004
199	Making a speech	—.42	.01
200	Organizing a play	—.35	.04
203	Teaching Adults	—.44	.03
210	Drilling Soldiers	—.35	.05
215	Writing reports	—.45	.01
234	Progressive people	—.63	.002
256	Sick people	.43	.03

Table continued on next page.

Table 26.(Cont'd)—SVIB Items Correlated With Helpers' Adjusted Improvement Scores for Youth Who Are *Manipulators*

N = 45

SVIB No.	Item	Gamma	p
259	Cripples	.43	.05
284	Determine the cost of operation of the machine	.58	.001
299	Freedom in working out one's own methods of doing work	—.39	.03
302	Enrico Caruso, singer	—.38	.03
304	Henry Ford, manufacturer	.48	.01
315	Chairman, Arrangement Committee	.35	.05
320	Chairman, Publicity Committee	—.55	.002
331	Deal with things vs. deal with people (B)	.40	.03
343	Change from place to place vs. working in one location (A)	—.38	.03
344	Great variety of work vs. similarity in work (A)	—.50	.03
345	Physical activity vs. mental activity (B)	.39	.03
355	Few intimate friends vs. many acquaintances (A)	—.50	.005
369	Have more than my share of novel ideas	—.40	.02
377	Get "rattled" easily	.50	.05
378	Can write a concise, well-organized report	—.46	.01

(A) The "A" therapist prefers the second choice.
(B) The "B" therapist prefers the second choice.

Table 27.—SVIB Items Correlated With Helpers' Adjusted Improvement Scores for Youths Who Are *Subcultural Identifiers*

N = 41

SVIB No.	Item	Gamma	p
12	Auto Racer	.34	.05
13	Auto Repairman	.38	.03
32	Electrical Engineer	.36	.03
53	Librarian	—.38	.05
111	Economics	.40	.02
165	Vaudeville	—.45	.02
171	Sporting pages	—.64	.002
196	Interviewing men for a job	—.54	.005
276	Independents in politics	.41	.04
278	Men who use perfume	.40	.04
294	Courteous treatment from superiors	.47	.007
349	Listening to a story vs. Telling a story (B)	.41	.03
363	Win friends easily	—.43	.03
365	Usually liven up the group on a dull day	—.38	.05
368	Have mechanical ingenuity (inventiveness)	.39	.03
381	Followup subordinates effectively	.39	.05
396	Borrow occasionally vs. Practically never borrow (B)	.43	.04
398	My advice sought by many vs. Practically never asked (B)	.40	.05

(B) The "B" therapist prefers the second choice.

Table 28.—SVIB Items Correlated With Helpers Adjusted Improvement Scores for Youths Who Are *Situationals*

N = 37

SVIB No.	Item	Gamma	p
28	Consul	—.45	.02
54	Life Insurance Salesman	.47	.02
65	Office Manager	—.51	.004
99	Wholesaler	.35	.04
102	Agriculture	.37	.04
131	Public Speaking	—.45	.03
147	Observing birds (nature study)	.40	.02
168	Pet canaries	.38	.04
169	Pet monkeys	.43	.02
190	Operating machinery	.45	.02
191	Handling horses	.49	.01
193	Raising flowers and vegetables	.42	.04
198	Interviewing clients	—.52	.03
199	Making a speech	—.37	.04
208	Meeting new situations	—.76	.01
217	Bargaining ("swapping")	.43	.03
255	Foreigners	—.39	.05
304	Henry Ford, manufacturer	.39	.05
308	William H. Taft, jurist	—.39	.04
310	John Wanamaker, merchant	.36	.05
320	Chairman, Publicity Committee	—.39	.03
339	Selling article, quoted 10% below competitor vs. Selling article, quoted 10% above (B)	.48	.01
351	Amusement where there is a crowd vs. Amusement alone or with one or two others (B)	.35	.05
354	Belonging to many societies vs. Belonging to few societies (A)	—.53	.03
381	Followup subordinates effectively	.53	.01
386	Smooth out tangles and disagreements between people	.45	.05

(B) The "B" therapist prefers the second choice.

Table 29.—Quay Items Correlated With Helpers' Adjusted Improvement Scores for Youths Who Are *Neurotics* and *Subculturals*

	Item and Quay Behavioral Classification*	Gamma	p
	Success With NEUROTICS		
32.	I would rather work in a living unit where the structure is clear and the limits are very tight. (BC3-A)	—.54	.004
31.	Working with boys who like me one day and are mad at me the next doesn't bother me at all. (BC2-A)	.51	.01
50.	It bothers me to have to work with boys who act much younger than their age. (BC1-D)	.55	.01
47.	When I was a boy I had quite a few delinquent kids as acquaintances. (BC4-A)	.41	.02
20.	When a boy makes a decision, I am willing to take a chance and go along with him. (BC2-A)	.53	.02
9.	Most delinquent kids would be o.k. if they had the work skills to compete in the outside world. (BC4-A)	.43	.03
10.	I don't mind admitting to a boy that I can make mistakes. (BC2-A)	.68	.03
44.	Most delinquents are not much different from other boys. (BC4-A)	.40	.05
	Success with SUBCULTURALS		
5.	I do not like a living unit where the boys are not good in competitive activities. (BC1-D)	—.44	.01
29.	I find it is very difficult to work with the kind of boys who are always demanding attention. (BC1-D)	—.40	.02
20.	When a boy makes a decision, I am willing to take a chance and go along with him. (BC2-A)	—.42	.04

*"BC3-A" means QUAY 3, sociopathic, and successful helpers should agree. D stands for disagreement. QUAY 1 is immature. QUAY 2 is neurotic. QUAY 4 is subcultural.

Table 30.—Quay Items Correlated With Helpers' Adjusted Improvement Scores for Youths Who Are *Manipulators* and *Situationals*

	Item and Quay Behavioral Classification*	Gamma	D
	Success With MANIPULATORS		
44.	Most delinquents are not much different from other boys. (BC4-A)	—.49	.003
56.	When most delinquent kids learn right from wrong they will be o.k. (BC4-A)	.43	.02
54.	Officers or counselors should rarely let the boys know that they (the staff) are wrong or have made a mistake. (BC3-A)	.43	.04
12.	I feel more comfortable working with boys who are not easily bothered by things than with those who are more easily upset and tend to show their feelings (BC4-A)	—.36	.04
21.	The idea that boys are delinquent because of forces beyond their control is generally nonsense. (BC2-D)	.32	.05
41.	I would rather work in a living unit where the boys are given responsibility to make decisions about the rules within the unit. (BC2-A)	—.36	.05
	Success With SITUATIONALS		
55.	It is particularly difficult for me to work with the kind of boys who are always testing institutional procedures.(BC3-D)	—.40	.02
15.	Disciplinary actions for rule violations are best handled without a lot of bother about what may have led up to the situation. (BC3-A)	.35	.04
31	Working with boys who like me one day and are mad at me the next doesn't bother me at all. (BC2-A)	.37	.04
44.	Most delinquents are not much different from other boys. (BC4-A)	—.36	.05
3.	I like to challenge a boy to make a real committment to a nondelinquent way of life. (BC4-A)	.36	.05
43.	Scared and unhappy boys need a chance to express themselves to an adult willing to listen. (BC2-A)	.65	.05

*"BC3-A" means QUAY 3, sociopathic, and successful helpers should agree. D stands for disagreement. QUAY 1 is immature. QUAY 2 is neurotic. QUAY 4 is subcultural.

Chapter VI

Clinical Interpretation

Valid clinical interpretation of empirical data involves two steps: (1) How sound is the finding? (2) What does it mean for clinical practice? The second of these questions is necessarily inferential if the finding concerns the personality of the therapist. However, some criteria are available for assessing the first question: the soundness of findings: (a) The strongest findings we have are those where a relationship is observed in more than one sample. Such a relationship is more dependable and generalizable than one for which we have a single sample. (b) The weakest findings to be interpreted here are those derived from "chaining" correlations (correlates of correlates); such findings may be interpretable if there are consistent patterns, but specific correlations ought to be treated as suggestive hints for further research. Between these two, the strong and the weak findings, are those which derive directly from a criterion of success (not chained) but for which we have no replication (only one sample).

At some expense to orderly content, I will present findings in order of their strength as derived from data presented in this volume. Findings from studies being conducted by others may soon be available and may confirm the findings presented here. But, for now, we have only what is here.

I will use the word "client" to stand for any patient or juvenile delinquent included in the studies reported here. I will use the word "therapist" to stand for all the therapists and helpers in these studies. While some might object to my calling a house parent a "therapist," they would probably be equally unhappy with my calling a psychiatrist a "helper." Our findings reveal a certain unity among these "change agents."

Neurotics

This brings us to the most robust of our findings, that the N Predictor derived from the success of Phipps Clinic residents with neurotics, actually predicts the success of Loysville staff with neurotic delinquents. What stronger evidence could there be of the importance of the personality of the therapist than that the same personality measure is valid for the highly educated, highly trained, highly selected psychiatric residents of the Phipps Clinic and for the Loysville staff, most of whom have no college education at all, but have had years of practical experience? (tables 13, 24, 25). It is this replication that gives us some reason to claim that all our "change agents" are "therapists."

Of more interest perhaps is the meaning of the N Predictor and its significance for therapy. The N Predictor contains at least three clusters, the most important of which is NSOLVE. But let's look first at the weaker clusters, NQEST1 and NQEST2 (tables 10 and 13). The PTQ sheds little light on these two enigmas (table 16). NQEST2 is particularly enigmatic and it fails to predict for the Loysville sample (table 24). On the other hand, NQEST1 contains the item "Literature." Therapists uccessful with neurotics like literature. Careful comparison of the Loysville data (table 25) with the Phipps data (table 13), including those items significant between the .05 and .10 level, reveals a number of items indicating that therapists effective with neurotics like literature and art.

What does this attention to literature and art mean in the treatment of neuroses? Perhaps it reflects intuitive skills, or the use of the way one experiences an object in relating

to that object. Betz observes that many neurotics like to live fanciful fairy stories. They act them out at an adult level. Moreover, neurotics have to work their way out of these patterns themselves. They cannot be pushed. This latter is the point of our major N cluster, NSOLVE.

Most of the items in NSOLVE involve solving a problem or puzzle (table 13). Therapists who are successful with neurotics *reject* these items. The significance of this is probably best described in the following:

> In the early days of analytic technique it is true that we regarded the matter intellectually and set a high value on the patient's knowledge of that which had been forgotten, so that we hardly made a distinction between our knowledge and his in these matters. We accounted it specially fortunate if it were possible to obtain information of the forgotten traumas of childhood from external sources, from parents or nurses, for instance, or from the seducer himself, as occurred occasionally; and we hastened to convey the information and proofs of its correctness to the patient, in the certain expectation of bringing the neurosis and the treatment to a rapid end by this means. It was a bitter disappointment when the expected success was not forthcoming. How could it happen that the patient, who now had the knowledge of his traumatic experience, still behaved in spite of it as if he knew no more than before? Not even would the recollection of the repressed trauma come to mind after it had been told and described to him.
>
> In one particular case the mother of an hysterical girl had confided to me the homosexual experience which had greatly influenced the fixation of the attacks. The mother herself had come suddenly upon the scene and had been a witness of it; the girl, however, had totally forgotten it, although it had occurred not long before puberty. Thereupon I made a most instructive observation. Every time that I repeated the mother's story to the girl she reacted to it with an hysterical attack, after which the story was again forgotten. There was no doubt that the patient was expressing a violent resistance against the knowledge which was being forced upon her; at last she simulated imbecility and total loss of memory in order to defend herself against what I told her. (Freud, 1959, p. 362-363)

> This . . . should remind the psychatrist of two important facts. First, his interest in research should be secondary to his eagerness in discovering data strictly pertinent to his psychotherapeutic obligations. Second, he should not be pertinacious in searching for and in conveying understanding to the patient at the expense of observing what is going on in the patient. There is fequently no therapeutic advantage in doing so. As Freud said, "The psychoanalyst's job is to help the patient, not to demonstrate how clever the doctor is." (Fromm-Reichmann, 1950, p. 19)

> . . . the patient must be permitted to work on his own problems at his own speed without interference or pushing from the therapist. (Strupp, 1960, p. 209)

> The seizing on every behavior pattern of the patient (by the schizoid therapist) . . . can be for the patient a pitiless operation which he perceives as detective-like—all the more so since the analysis takes place in the described cooly distant atmosphere. (Riemann, 1968, p. 79)

Through these quotes runs a common theme. The detective, the investigator, the researcher, the problem-solver runs roughshod over the clients' feelings. Another SVIB item that discriminates success with neurotics is: "Usually ignore others' feelings vs. usually consider others' feelings." Therapists successful with neurotics chose the second pole (table 13). Moreover, this item correlates .38 ($p > .05$) with NSOLVE (rejects problem solving). There seems little doubt that these findings, taken together, confirm the cited literature.

With all of these pronouncements in the literature, what is so new about NSOLVE? Theodore Newcomb says that the role of science is not so much to confirm common sense, but to define the conditions under which common sense happens to be true. While it is clear that Freud is discussing the neuroses, the context of the other quotes is not so clear. Therapists' problem solving is particularly a problem in the treatment of neuroses, and not in other disorders, probably because of the distress associated with uncovering repressed material.

The findings illustrate the relationships among the concepts of technique, personality, and outcome. Specifically, they suggest that the therapist must be careful in reacting to neurotic problems. Freud sat behind the patient in order to give ' . . self over to his unconscious thoughts. Freud's face was an expressive face. Perhaps, a "poker face" need not

be so careful. In any event Benedek is probably correct that the therapist expresses his or her personality no matter what. But Freud is also right that the therapist should try not to express himself in certain therapeutic situations. The issue is not one of personality vs. technique, but rather what light does personality shed on technique, and to what extent can we modify our characteristic predispositions when therapeutic situations demand that we do so? Part of the significance of the present personality findings is that they define the kinds of patient for which certain prescribed techniques are appropriate.

Psychoanalysis is particularly associated with the treatment of the neuroses. While many analysts would insist that it is useful for a wide range of disorders, still many would insist that traditional analytic methods need considerable modification when applied to other than the neuroses. If we assume a kind of correspondence between psychoanalysis and the neuroses, certain common-sense notions are difficult to ignore. Of all the mental health literature, the psychoanalytic literature is most literary. The offices and homes of analysts are adorned with art. Finally, therapists high in NSOLVE reject the idea that science should have much to say about moral values (table 16). Thus, the distrust of science and systematic research (Colby, 1960, p. 52-57) so common among analysts may have some functional utility in the treatment of neuroses.

Schizophrenics

For schizophrenics we have one finding which is replicated. The S predictor is derived from the percent of patients improved for those Phipps therapists who prescribed no drugs (table 11). This predictor and one of its clusters, SXPRSA, are valid for another group of Phipps therapists, those who prescribe drugs, but only for those patients who did not get drugs (table 18). S and SXPRSA fall short of significance in predicting success when drugs are prescribed.

Clinical interpretation of these findings depends primarily on the meaning of SXPRSA. This cluster consists of three items, the successful therapist agreeing with all of them: "Able to meet emergencies quickly and effectively," "Stimulate the ambition of my associates," and "Expressing judgments publicly regardless of criticism" (table 11). These are all acts of leadership, but of a special kind. Whitehorn (1961) was much concerned with the therapists' leadership role in the treatment of schizophrenia. He described this role as "consultative" and "evocative." These items and others such as "Accept just criticism without getting sore" suggest that an active, participative involvement is necessary to reduce the schizophrenic's feelings of alienation (Ricks, 1974). Moreover, the active role is emphasized by the fact that the S predictor and SXPRSA are positively correlated with the Preference for Decision Making (tables 38, 16).

The personal involvement of the therapist with the schizophrenic is not of the kind usually called "sociability" or "extroversion." There are a large number of "social" items in the SVIB that do not discriminate success with schizophrenics (Full-dress affairs, Interviewing men for a job, Interviewing prospects in selling, Interviewing clients, Opening conversation with a stranger, Meeting and directing people, Writing personal letters, Raising money for a charity, Congenial co-workers, Dealing with people vs. things, Tell jokes well, Many acquaintances vs. few intimate friends, Win friends easily, Many societies vs. few societies.) The last two items do distinguish those therapists who prescribe drugs for schizophrenics (table 63). The relationship that helps schizophrenics is more active and involved than is implied by "sociability."

The S predictor and SXPRSA are not significantly related (.39 and .30 respectively) to the therapists' success with schizophrenics for whom drugs were prescribed (table 18). It is usually risky to draw inferences from the null hypothesis, and it is particularly risky when samples are small (N = 12), but the findings suggest that this participative leadership may not be so crucial if drugs are prescribed. There is, however, another set of findings that suggest that other aspects of therapy with schizophrenics are somewhat similar regardless of whether drugs are prescribed. First, though, we consider the origin of these other findings.

So far in this chapter we have been concerned with replicated predictors and their interpretation. We turn now to predictors not directly interpretable and the personality correlates of these predictors which make interpretation possible. While these "correlates of correlates" are not as dependable as direct interpretation of predictors, there is one set of correlates which is peculiarly replicated in a fashion that gives considerable confidence.

If we compare the correlates of the TOTL S predictor derived from the drug-free therapy at Phipps with the correlates of ABDRUG derived from drug-related therapy, there is a very similar pattern. More precisely, if we apply the drug-free predictor to therapists not in a hospital setting (as discussed on pages 30-31, most of them don't prefer drugs as much) and apply the predictor for drug-related therapy to therapists in a hospital setting, the patterns of correlations are very similar (table 19). These patterns indicate that therapists who are effective with schizophrenics are tolerant of schizophrenic symptoms and they are interested in how other people feel (Mosher, 1974). In addition to this "replication," there is still another reason for accepting these findings: they are completely consistent with Whitehorn and Betz findings derived from clinical records (page 16 above), that successful therapists are concerned with understanding the patient, not with reducing his symptoms.

While we must use caution about specific correlates, it seems appropriate to mention Tolerance for Ambivalence because the finding is consistent with the "need-fear dilemma" of Burnham, Gladstone, and Gibson (1969).

Thus the pattern of traits for the treatment of schizophrenia involves, on the one hand, active, involved, structuring leadership, SXPRSA, while, on the other, tolerance and understanding, SD. While these traits are not completely inconsistent, they are empirically independent (tables 14, 16).

It is possible, though by no means clear, that these two aspects of the treatment of schizophrenics bear a relation to two general aspects of leadership in groups: the task function and the supportive function. Daniel Katz (1973) reviews the findings and concludes that rarely can the two functions be carried by the same person. This emphasizes anew the demanding requirements of psychotherapy with schizophrenics.

Personality Disorders

Our findings with respect to the personality disorders are derived from the study at the Loysville Youth Development Center in which we developed methods for dealing with some knotty problems of therapeutic influence in a milieu. While these methods yield reasonable results, they cannot be considered as valid as the findings from Phipps Clinic where each therapist was assigned to, and spent considerable time with his patients. Moreover, for some diagnostic groups at Loysville, the number of cases is small. We will concentrate, therefore, on patterns of findings rather than on specifics.

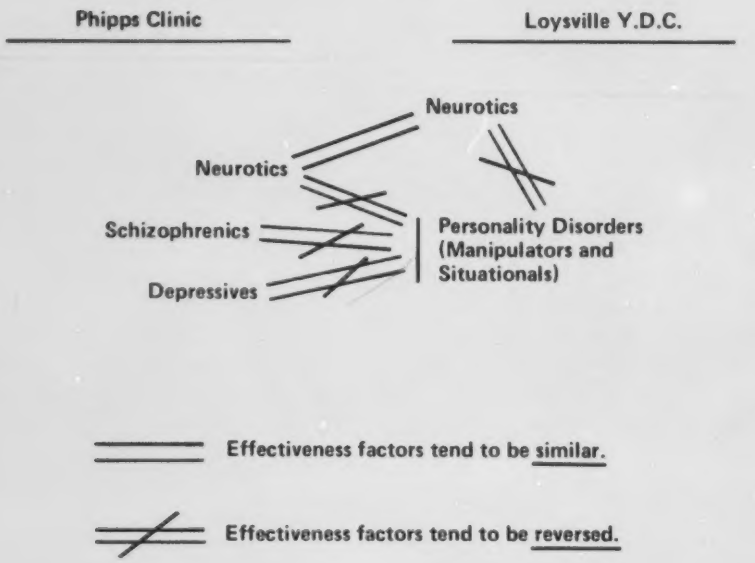
We have already noted above the similarity in personalities effective with neurotics at the Phipps Clinic and at Loysville. The other five diagnostic groups at Loysville do not correspond with any Phipps data currently available. Of the five (situationals, subcultural identifiers, manipulators, conformists, and asocials) all but the subcultural identifiers (page 78) could probably be labeled personality disorders.

Among the patterns of findings, the most important is the absence of pattern across the diagnostic groups. This is true whether we look at all six groups or only the four personality disorders. In other words "juvenile delinquency" and "personality disorder" stand for groups which are much more heterogeneous than the schizophrenias, the depressions, or the neuroses.

Moreover, if all of the groups are combined there are practically no findings at all (tables 23, 24). The interpretation is clear. On the basis of present findings no treatment prescriptions are possible for the "personality disorders" *as a whole.* But there are meaningful findings for particular personality disorders.

Of the four personality disorders, the numbers of cases are very small for two: the conformists, and the asocials. The other two, the manipulators and the situationals, provide more valid findings.

Figure 3
EFFECTIVENESS PATTERNS FOR VARIOUS DISORDERS



If we compare effectiveness factors for the various diagnostic groups at the Phipps Clinic and at Loysville, we find that the factors for the two personality disorders are frequently reversed from those for neurotics, schizophrenics and depressives. This pattern is presented schematically in figure 3. While we would not necessarily expect similarities, it is curious that there are so many opposites.

For example, there are a substantial number of findings for effectiveness with "manipulators." This group is probably nearest to what is usually called "psychopathic" or "sociopathic." While therapists who are successful with neurotics tend to like literature and art (tables 13, 25), therapists who are effective with manipulators dislike at least 10 SVIB items in the areas of writing, literature, art, and music (table 26). Still another reversal is for the Quay item, "Most delinquents are not much different from other boys." This is agreed to by those effective with neurotics and disagreed to by those effective with manipulators (tables 29, 30).

If we compare factors effective with manipulators and those effective with schizophrenics, we find several reversals: the personality scales, Tolerance of the Unrealistic Experience, Preference for Decision Making, and Nurturance Anxiety (tables 16, 23) as well as two specific items, author of a novel and social problem movies (tables 11, 26). There are no congruences. There is even one reversal comparing factors for manipulators and depressives—operating machinery (tables 12, 26).

While it cannot be asserted that the treatment of manipulators is directly opposed to the treatment of neurotics, schizophrenics, and depressives, there certainly is little in common in these findings. The emphasis for manipulators is on no-nonsense controls and learning right from wrong (table 30). The therapist is himself not very sociable (tables 23, 29).

For the situationals we have little in the way of description except that the effective therapist is not too demanding of himself (table

23). The original "A-B Scale" of Whitehorn and Betz is negative for this group, and this will be discussed further in the next section (table 24).

The socialized subcultural identifiers (including many blacks) are not really "disordered." They are socialized to deviant subcultures. They are not well served by the kind of active involvement which helps schizophrenics (table 24). The prime requirement is for the therapist to be free of prejudice, and not burdened with remorse (table 23). The successful therapist feels comfortable with subordinates (tables 23, 29).

In summary, the labels "juvenile delinquents" and "personality disorders," cover a variety of problem groups which have little in common in these findings. For "situationals" and "manipulators," more often than not, effectiveness is characterized by the opposite of one or another aspect of effectiveness in treating the neuroses, the schizophrenias, and the depressions.

The A-B Functional Reversal

The original Whitehorn-Betz "A-B Scale" differentiated the A's, more effective with schizophrenics, from the B's, not so effective. When McNair et al. (1962) used the scale in V.A. outpatient clinics, the reverse was found: B's were more effective than A's.

Although the diagnoses of the outpatients is not known, these clinics generally have about 80 percent neurotics, and the findings usually have been interpreted that A's are more effective with schizophrenics while B's are more effective with neurotics. In fact, there are a number of possible explanations for the McNair reversal: the A-B semantic reversal, female patients vs. male patients, schizophrenics vs. neurotics, schizophrenics vs. personality disorders, and severe vs. mild disorders.

With respect to the semantic reversal, it was shown that the original "A-B Scale," and indeed other A-B clusters such as SD and DBUSNS, tend to reverse their meaning when we compare therapists who have high empathic interest with those not so high, or when we compare hospital therapists with nonhospital ones (tables 3, 9). In the present samples, there are few therapists from V.A. outpatient clinics. However, careful study of therapists in other outpatient clinics indicates that the correlational patterns are similar to that for the original Whitehorn-Betz therapists. It is quite reasonable that outpatient clinics have a psycho-social orientation similar to that of the Meyer-Whitehorn Phipps Clinic. For this reason, it is doubtful that the McNair reversal is a semantic reversal.

Phipps patients tend to be about 55 percent female. The V.A. patients are overwhelmingly male. There is little information about how sex roles influence the factors effective in therapy. We can only note that while the Phipps neurotics are also predominately female, the Loysville neurotics are all males. Yet some of the same therapist personality factors seem to be at work for neurotics in both settings.

Consider now the hypothesis most commonly held and tested: that A's are more effective with schizophrenics while B's are more effective with neurotics. This is usually a test for the significance of an interaction. An interaction will be significant if one group is *relatively* more effective than the other. The A's could be more effective for *both* diagnostic groups, and the interaction would be significant if they were *relatively* more effective with schizophrenics. In point of fact, there have been studies where the A's were more effective with schizophrenics and equally effective with the B's in treating neurotics (e.g., Berzins, et al., 1972). This type of finding is consistent with some findings presented here: the original "A-B Scale" (for schizophrenics) is correlated only .22 with "percent-improved, neurotic" (table 14). Thus there should not be any difference between A's and B's in their success with neurotics.

There is, however, another interpretation: the "Super-A" hypothesis is that A's can do better with schizophrenics and at least as well with other diagnostic groups because of some inherent characteristics of A therapists (Chartier and Weiss, 1974). This hypothesis could also be supported by data presented here. It could be argued that since the A's show greater tolerance (table 16), they are more flexible, have greater "plasticity" in Reich's terms, and can adapt to a wider variety of patients. There are some studies which are suggestive

of greater plasticity among A therapists (Schubert and Wagner, 1975; Smith, 1972; Hasenfus, Martindale, and Kaplan, 1975).

The hypothesis most consistent with the findings presented here is that the McNair reversal is somehow related to the presence of personality disorders in the V.A. sample, or to the mildness of the disorders in that sample. Findings discussed in the last section above point to a reversal of success factors between personality disorders and the schizophrenics. It is possible, for example, that "plasticity" is not helpful in treating manipulators.

However, for only one of the personality disorders is there a negative relation with the original "A-B Scale"—the situationals (table 24) and these happen to be the mildest of the disorders studied here. It is therefore difficult to say whether the McNair reversal is related to diagnosis or to severity, or both.

In any event, it should be kept firmly before us that the findings presented here are for *long-term* treatment of *institutionalized* clients more severely disturbed than most outpatients. Further studies are needed to determine how these findings apply to mildly disturbed outpatients. Evidence in the present studies indicates that effective treatment of schizophrenics is different from that for neurotics, but it is *not the opposite*, unless the neurotics are in fact personality disorders, or mild situationals.

The Functional Psychoses

The SD cluster is of particular interest for two reasons. The dimension it contains, rejection of manual and mechanical interests, dominates the original Whitehorn-Betz "A-B Scale" (table 14). Moreover, since it is predictive of success with both schizophrenics and depressives, it is possible that it stands for traits required in the treatment of the functional psychoses.[1]

Unfortunately, the cluster is not directly interpretable in psychotherapy, and, worse still, it is multisemantic—it changes its meaning for different groups of therapists (tables 16, 58). For interpretation we are therefore dependent upon the "correlates of correlates" under circumstances where we cannot be certain that we are using an appropriate population, i.e., one similar to the 35 Phipps Clinic residents from whom the cluster is derived.

Granted all of these reservations, the clinical interpretation of SD is that the therapist effective with psychotics is tolerant of regression and interested in others' feelings (table 16). He is probably high in nurturance anxiety, suggesting that (in spite of his personal involvement with schizophrenics) he is wary of allowing others to become dependent upon him (table 16).

These inferences are much in need of replication.

The Depressives

In addition to SD, there are two other clusters predictive of success with depressives. Not only do these therapists who are effective with depressives reject manual and mechanical interests, they also reject business interests (DBUSNS, table 16).

In fact, of the three depressive clusters (SD, DBUSNS, DCIVIC), DBUSNS is the dominant one (table 14). Unfortunately, it is multisemantic (tables 16, 58) and requires the same reservation as for SD.

Our best guess is that this rejection of business interests reflects a high degree of individualism (rejecting of social influence) (table 16). This appears at first glance to be an unlikely finding since business men think of themselves as individualistic.[2] However, if one

[1] At the Phipps Clinic, "depressives" included both psychotic and neurotic depressions. We cannot be certain whether our findings apply to one, or the other, or both.

[2] It is necessary for many of the findings in these studies to distinguish between ideologies, on the one hand, and behavior that may relate to ideologies, on the other. The distinction is illustrated in several ways among the variables included in the PTQ. Frequently both aspects were included to test which seemed to be the relevant one for the psycho-social therapies.

For example, what is the significance of the rejection of manual and mechanical interests? Is it possibly rejection of work as an activity, or possibly rejection of the work ethic? It appears that the latter is primarily involved (table 16).

Deference Anxiety is concerned with accepting authority in a concrete interpersonal sense. Authoritarianism (An-

Continued on next page

thinks of business men's fashions and other aspects of social conformity in business, it is probably quite reasonable. The rejection of business interests also probably reflects anxiety about having to defer to others (table 16).

Rejection of business interests is also associated with the low end of the antidemocratic (authoritatian) F Scale (table 16). These therapists are probably low in ethnocentrism and are not likely to have negative attitudes toward serious mental disorders (Gilbert and Levinson, 1956). Finally, rejection of business interests is associated with tolerance of the unrealistic experience (table 16).

The third cluster has been labeled DCIVIC. It consists of liking civics, disliking J. P. Morgan, financier, and preferring a job in a large corporation rather than being an independent business man. This cluster is correlated with a liking for being a labor arbitrator (tables 12, 14).

With DCIVIC we are trying to interpret correlates (rather than correlates of correlates). Still it may be somewhat of a flight of fancy to assert that these four items represent a commitment to a broader social concern. Barbara Betz suggests that such a person may provide a model of broad social interest for a person who is overly dependent upon one other person or only a few other persons. While the schizophrenic is not at all attached, the depressive is too attached to others (personal communication). Dependency in depressives is summarized by Chodoff (1973).

In summary, our inferences for the treatment of depressives must necessarily be tentative because of the nature of our data. They suggest that the therapist who is effective with depressives is, on the one hand, an individual resistant to social influence, wary of others becoming dependent upon him, and anxious about having to defer to others. On the other hand, he probably has a broad social concern. He is not authoritarian or ethnocentric. He probably views persons who have mental disorders as similar to other people.

The Generalist Approach and the Differential Hypothesis

In these studies there is little evidence to support the generalist notion that there are good therapists and bad ones regardless of what kinds of problems are being dealt with. On the other hand there are significant, meaningful findings to support the differential hypothesis that specific interests and predispositions in therapists are related to success with particular diagnostic groups.

The first question to be asked is whether therapists who are effective with a particular diagnostic group are also effective with other diagnoses. An affirmative answer to this question would imply a substantial positive correlation among the measures of therapist effectiveness for the various diagnostic groups. Among the Phipps residents treating schizophrenics, depressives, and neurotics, while the intercorrelations are positive, they are low and only one of them approaches significance, the one relating effectiveness with schizophrenics to that for depressives (table 14, Triangle 1). This may reflect the presence of a psychotic factor in those two groups.

Among the Loysville staff, there is only one positive correlation. There is a positive relation for the two mildest groups—the situationals and the subcultural identifiers, both of which some would assert to be "normal" (table 22).

Thus although there is no support across all diagnostic groups, it is possible that the generalist notion will receive some support in those settings which are concerned primarily with mild problems. As pathology becomes more severe, it may become more differentiated, and require more differentiated treatment.

Continued from previous page

tidemocratic) is a broad ideology that tends to define relations with almost everyone, peers included. The correlates of these two are not so very different (table 16).

Finally, Individualism is a personal resistance to social influence (akin to Independence of Judgement). Rugged individualism, the opposite of what we are inferring in DCIVIC, is a broad ideology. It is suggested that businessmen are high in rugged individualism but low in Individualism, and that this explains the findings with respect to the depressives (tables 14, 16).

A second consideration is that the generalist notion may receive support in those groups of therapists who are in training or who have little experience. In effect, there are in such groups some persons who don't belong (not good at any kind of therapy) and who will leave, or go into related fields such as research or administration. Were I not concerned for the anonymity of my respondents, it would be possible to point to some anecdotal evidence in support of this idea. There is no systematic evidence in the present studies to support it, but the idea is discussed (page 61).

There is a further reason why the generalist hypothesis gets acceptance. If a particular clinic population is dominated by a particular diagnostic group, factors which are really specific to that group appear to be general, for want of a wider reference population.

As for the present evidence bearing on the generalist approach and the differential hypotheses, a second kind of question can be asked: are there traits that all good therapists have in common? Among the Phipps residents, a low Need for Closure is found correlated with the predictors for all three diagnostic groups: the schizophrenics, the depressives, and the neurotics (table 36). The notion is beguiling: all mental disorders are complicated and inconstant; closure can never be achieved in treating them.

While such an idea should not be rejected, there are two reservations. The apparent generality of this factor at Phipps *could* be an artifact of the way the PTQ was constructed, certain idiosyncratic items being excluded (pp. 41-42). The second reservation is that the need for closure fails to predict success with neurotics at Loysville, or indeed, with any group at Loysville (table 23).

The most interesting evidence in support of the differential hypothesis, and rejecting the idea of "the good therapist," is that, while specific therapist personality factors predict success with specific diagnositic groups at Loysville, there are practically no factors which predict therapists' success with all of their youths (tables 23, 24).

One final reservation must be made about the failure of the present studies to show a general personality factor in effective therapists. One study might be interpreted to show such a factor (Garfield and Bergin, 1971a). They found their successful therapists did *not* have elevated scores on certain MMPI scales. There is widespread acceptance of the idea that therapists who themselves are poorly adjusted are not likely to be helpful to others. In the present studies there is no measure of personal adjustment. (This was by design. See appendix 1). Therefore, the present studies provide no test of the most plausible general factor in the literature. On the other hand, the present studies would go beyond the adjustment hypothesis and assert that personal adjustment is not enough to be effective in psychotherapy.

What are the clinical implications of the differential hypothesis? It places an enormous burden on diagnostics. (Alternatively, the findings reported above are all the more impressive, recognizing the frequently reported unreliability of diagnoses.) If the therapist is reasonably well suited to his specialty, there is little that can be said about appropriate treatment unless we know something about the client's problem (Horwitz, 1974).

When we consider the implications of the differential hypothesis for milieu therapy, it is clear that, while individual therapists *may* be able to adapt their styles to their clients' needs, milieus are not easily changeable, nor can they easily discriminate among their members. Consider the following Quay items (tables 29, 30):

> I don't mind admitting to a boy that I can make mistakes.
>
> Officers or counselors should rarely let the boys know that they (the staff) are wrong or have made a mistake.

Therapists effective with Neurotics say "true" to the first of these items. Therapists effective with Manipulators say "true" to the second. This suggests that clients should be assigned to cottages or nursing units with varying milieus designed to match varying diagnoses. This idea has sometimes been deliberately implemented (e.g., Gerard, 1969; Palmer, 1974). John Williams, Director at Loysville, feels the idea has merit provided the institution has control over intake and can exclude those who do not fit any of its treatment capabilities (personal communication). In any event, the dif-

ferential hypothesis has many implications for the design of therapeutic services.

Further implications for one-to-one therapy depend upon future studies that tell us something about therapists' abilities to adapt to individual clients with varying diagnoses. If therapists can adapt, given an understanding of what is needed by each client, there is little reason for long-run concern. If, however, clients are best served by therapists who are, for the most part, expressing their own personalities, then the implications of the differential hypothesis are far-reaching; they extend to the design of services, training programs and core curricula, selection for such services and programs, professional services review, and perhaps even to licensure specialties. The implications are too far-reaching for reasonable inference from our presently available knowledge.

Chapter VII

Implications for Research

The primary research implication of the studies reported here is as follows: relatively simple conceptualizations and naturalistic methodologies have yielded meaningful, consistent, and, in some cases, replicated findings. As noted in the Overview, such findings are not the rule for research in the psycho-social therapies. The first part of this chapter considers by simple concepts and methods are appropriate to this field at this time.

There is little doubt that researchers are attracted to and feel pressures toward certain prestigious approaches, e.g., multivariate models and experimental methods. In general, the prestigious approaches are those of "advanced" fields where there is a large body of knowledge and complex conceptual systems, and where the task is to prove or disprove certain deviations from the existing store of knowledge. Such is not the case for the psycho-social therapies; the needs are for exploration.

Generally speaking, referee systems tend to penalize researchers who choose to explore, for the referees tend to start with the prestigious approaches as ideal. Moreover, it is the prestigious approaches which are taught. There are many journals in which it is impossible to present exploratory findings. In exploration, the methods develop with the data, they cannot honestly be detailed first. Thus, the prevalent scientific biases lead editors to prefer an experimental study with null findings to an exploratory one which presents some systematic findings and some loose ends.

This, then, is the bias against exploration. But the psycho-social researches suffer from another bias too. The methods used are those developed in the physical and biological sciences; they are not appropriate to studies of social behavior. This is discussed in the second part of the chapter.

I am not suggesting that we be less rigorous. Indeed, in the last part of the chapter, where more detailed implications are presented, I will complain about the lack of a particular kind of rigor in most of today's behavioral research. This is the erroneous assumption that all human beings are alike (spawned also in biology). There is a general failure to adequately define human subpopulations, to sample them properly, and to attempt to include all who are sampled.

This chapter is concerned with research strategies in exploration, the limitations of the biomethodology, and the specific implications of the studies presented above. Throughout the chapter the emphasis is not on determining which approaches are "right" or "wrong" but rather which are optimal in the sense that they maximize returns and minimize errors and biases in this research area at its present stage of development.

Research Strategies in Exploration

In the year 1500, Columbus had already discovered a way to the East by sailing west, but most people, and indeed most scientists believed that the earth was flat and that the sun and the planets revolved about it. Copernicus found this conception unsatisfactory. He worked for several decades on the problem, finally sending the last of his *De Revolutionibus* to print when he was on his deathbed in 1543. *He claimed no proof.* It would be nearly seven more decades before Galileo, using the newly discovered telescope, could provide the proof, and yet another seven decades before Newton could describe with precision the force of gravitation that explained the movement of the planets, of the tides, and of objects on earth.

The question Copernicus asked—did the sun and the planets revolve around the earth, or did the earth and the planets revolve around the sun—was not an easy question, but it was a relatively circumscribed one. Note that he did not ask. Are the orbits circles or ellipses? This was Kepler's problem 70 years later. He did not ask whether the sun and the planets rotate on their axes. This was Galileo's. Neither Kepler's nor Galileo's could have been asked until that of Copernicus was answered.

This illustrates two propositions:

1. Exploration should not be burdened with proof. When we demand proof, we inhibit systematic exploration. The literature of the psycho-social therapies is tending to polarize toward case reports on the one hand, and controlled experiments on the other.

2. Certain questions are prior questions. Until the prior questions have been dealt with in at least a preliminary way, the niceties of the model cannot even be approached. For example, when Sullivan suggests that communication is subliminal, he may be precipitating a prior question (page 6 above). If communication in therapy is largely subliminal, certain kinds of manifest process analyses are not likely to yield useful findings. In the psycho-social therapies we have not yet identified the relevant variables. Are there any guidelines that can be set up that would help us to proceed in an optimal fashion?

Consider now the following paradigm: Given BLANK time limitations, and BLANK organizational climate, to achieve a BLANK objective, with a BLANK type of patient, who has a BLANK type of problem, at a BLANK stage of development, a BLANK type of therapist, should use a BLANK type of technique, in combination with BLANK other types of treatment, under BLANK conditions, at a BLANK stage of therapy. The task is to fill in the BLANKS. While slightly overdrawn, this paradigm is not really too different from some you will find in the current literature. Having defined the problem as impossibly complex, each investigator is free to pick two or three blanks he or she likes, and to emerge some time later, as often as not, with null findings. Unless the researcher picks the two or three which have a critical role in the variance, null findings are almost certain.

Recognizing that each of the blanks actually stands for a number of variables, not a single one, it is apparent that the number of variables is legion. In this situation we do not seek proof, we explore as Copernicus did. We measure a large number of variables as cheaply as possible so that we may discover those which contribute most to the variance.

But exploration is only a partial answer to the question. There are too many variables even for exploration. We must find some way to simplify the blankety-blank question. (Imagine how many patients and therapists we would need to deal with this question!)

The task is to optimize. In the Introduction (chapter II) I mentioned one kind of nonoptimizing: pouring enormous energies into measuring the outcome while the independent variable is taken largely for granted. Another aspect of optimizing is in the choice of critical variables. Certain existing studies suggest that certain of the blanks are critical while others can be postponed. One of the critical ones is the type of problem—the diagnosis. In those studies where the type of therapy was measured, and where diagnosis was included in the study, the differential hypothesis received support. Thus "type of problem" (diagnosis) is a critical variable.

Not only can *non*critical blanks be postponed, a critical blank can be postponed if it is highly correlated with a critical blank which is included. When we include the type of problem in a study, we have specified to a degree the type of outcome. In fact, some of the specific phobias, for example, have a very limited implied outcome, and some of the most successful therapies address themselves only to that outcome: relief from the phobia. This is not to say that outcome is always or even usually in terms of reduced symptoms, but rather that outcome is implied in the problem. It may be nice, and even elegant to measure social functioning, or income, or self-esteem before and after, but these outcomes are differentially involved in different problems.

For example, it is frequently asked whether the outcome of therapy should be judged by the patient, by his or her family, or by society. In fact, neurotics generally come to treatment because of their own feelings of distress; psychotics are frequently brought to treat-

ment by their families; and sociopaths are brought to treatment by society. Can there be a general answer to this question that does not consider the nature of the problem? The correlation between type of problem and type of outcome is further discussed by Kiesler (1971). Our first task in the psycho-social therapies is to discover what ameliorates the problem. The fringes come later.

There is another correlation in the blankety-blank question to which we have already given considerable attention: type of therapist by type of technique. It is not uncommon for our methodologists to worry about how we will ever separate the therapist from his or her technique. They are thus implicitly recognizing Lionells' findings that the therapist's personality determines technique. I view this confounding not as a worry but as a boon; it permits us to simplify the paradigm by substituting personality for technique as a first approximation. Later, we can separate them in specific studies designed for this purpose.

Another critical variable is "other types of treatment." If, for example, drug therapy has been shown to affect the behavior of patients (for better or for worse), this variable must be included. Then there is "milieu therapy"—more often than not called a "control group." How can we hold the expectation that contact with a psychotherapist, in many cases no more than 5 or 6 hours a week, is critical, while the score of hours with an aide is nothing? In the chapter on juvenile delinquency, George Furse and I tried to develop the methodology that will permit us to study one-to-one relationships within the milieu.

My reading of the current literature is that the other blanks have not yet shown themselves to be critical. The critical ones appear to be: (1) the type of problem (diagnosis), (2) some measure of change with respect to the problem, (3) the therapist, as a measure of the nature of the psycho-social therapy, and (4) other treatments.

Limitations of the "Biomethodology"

Let us assume that we can do a rational job of simplifying our conceptualizations, that we can learn to ask the right questions. Still we founder on the elegance of our methodology. The "approved" methodology is that which provides "proof." The "approved" methodology assumes a body of knowledge, the task being to "prove" a deviation from that body of knowledge. The methodology therefore makes the same megalomanic errors that our conceptualizations made when applied to research in the psycho-social therapies.

The task of science is such that we can never be sure that we have achieved final proof. No matter how elegant or perfect the studies and replications, some young upstart will destroy them with a new variable previously ignored. There is such a thing as relative proof; some things are better "known" than others. But if we do not know what should be measured or manipulated, there is no sense to proof. If we do not understand what dimensions are basic, there can be no relative proof. If there is no body of knowledge, we should explore.

In one recent experiment there were three groups: an experimental group and *two* control groups, a placebo control, and a plain control. The research protocols were extensive. Considerable resources were expended in measuring outcomes and other characteristics of patients in all three groups. If the experiments had provided instead for three different kinds of psychotherapy, and had measured the kinds of psychotherapy, the increase in expenditure would not have been great, but we would know a great deal more about the psycho-social therapies: three evaluated instead of one. While the dependent variables were very carefully measured, the independent variable, therapy, was not measured at all. So there still was no "proof."

We are easily beguiled by the niceties of method, but, as we shall see, some of these niceties are really not that nice. This is not to say that we can ignore what has been learned about methods; we cannot. We must concern ourselves with basic principles (e.g., random assignment, or some way of approximating it). But the design must be developed for each problem, not taken from a textbook in experimental design.

Not only has the biomethodology steered us toward seeking proof. It has failed to define important methodological principles that are needed for the *human* sciences. Basically our method-

ologies are those appropriate to the evaluation of hybrid corn, or the subdivision of amoeba, or the growth of tumors in rats. These methodologies do not allow for the effects of *human expectations*, with one exception: the "placebo" is designed to allow for the expectation that "treatment will help." The placebo makes no allowance for negative expectations, nor does it make allowance for the power of shared expectations in a social group. Picture yourself about to start group therapy with the following group: they have just arrived to sit and wait for the end of the world which is to happen at midnight. Might they not be different from your usual group?

In order to see the power of expectations, it is necessary to have a clear understanding of the "Hawthorne Effect." Mountains of material have been written about the Hawthorne experiments, and still the misconceptions abound. It would perhaps be appropriate to say: Never have so many been so confused about so much. At a recent large symposium on evaluation, the chairman was heard to say: "The Hawthorne effect was an experimenter effect, and experimenter effects wear off." What is properly called the Hawthorne effect was a very special kind of experimentation effect that did not wear off. In some instances the effect persisted for years and was ended only by the dissolution of the experimental setting. For example, in order to vary the illumination, the experimenters moved some employees to a separate room. Their findings indicate that the move to the separate room had permanent effects which were far more important than the changes in illumination. Thus, *in humans*, experimental manipulations can create *unintended* expectations. When expectations are shared by a face-to-face group, they can be very powerful indeed. As Norman R. F. Maier put it: "It was not an experimenter effect that was discovered at Hawthorne; it was the social system."

Much of the misunderstanding and oversimplification of Hawthorne is cleared up by Parsons (1974) in his concise, precise reanalysis. But even he seems to me to have missed the punch line. His revelation that some of the effects could be explained by operant conditioning is useful but not surprising. Operant conditioning was indeed the rationale for some of the experimental manipulations. The fact that operant conditioning worked was not new at Hawthorne. What *was* new was the fact that the experimental manipulations, including operant conditioning, did not explain all of the effects. These added effects seemed to be due to expectations, for the most part shared expectations about the environment. In some cases these expectations resulted in increased productivity. In others the effect was negative.

Parsons acknowledges the importance of shared expectations, but he chooses to call them "conditions," not "causes." There is much too much of this in the human sciences. "My variables are *causes;* yours are *conditions*, or *circumstances.*"

Not only does the biomethodology fail to handle the complex expectations of patients, it fails to deal with the expectations of therapists. We might get away with ignoring the therapist in the drug therapies, but not in the psycho-social therapies where relationships are so important. More on this below.

I have stated that the biomethodology steers us toward proof instead of toward the exploration that is needed. Further, the biomethodology is unable to handle, and in fact may exacerabate, the complex effects of human expectations. Before illustrating these problems in more detail, I will mention yet another problem with the biomethodologies. This burden, the most troublesome because it stands in the way of our learning, is that the biomethodology distorts the reporting of findings. These human reactions are too often viewed as "frailties" of method, which if known will consign the research project to a second-class journal. These pseudoscientific concerns interfere with the development of a true methodology for behavioral science. A truly scientific behavioral science must deal with these "frailties," not deny and ignore them.

One study has been roundly criticized because some members of the control group got themselves some therapy. Why can't they behave like corn stalks? The issue here is not the ethical one of withholding treatment, although the ethical one is the controlling one. The issue is a scientific one. *How can we assume that their desire for treatment, or the lack of it, does not affect our findings?* In short,

the ethical issue is requiring us to be more, not less (as some seem to suppose) scientific.

For more than 30 years I have observed evaluations, conducted them, talked informally with investigators and with their subjects. I have found that in many experiments there were human reactions which could have had important effects on the outcome and which were not reported. In some cases, the human interactions are viewed as "dirty linen"; it would be "bad taste" to report them. In other cases the experimenters themselves were traumatized, thrown out of the research setting, sometimes scapegoated by competing groups, or by resentful administrators. There are many too many of these experiments where the people "don't want to talk about it" or have come to deny that problems were encountered.

There are exceptions of course. Joan Rittenhouse's detailed report of experimental troubles will be discussed below. For now, let us illustrate the problems of the biomethodology by considering two important issues: random assignment and control groups.

Random assignment is a most useful principle. However, it does not in itself assure equivalence in groups being compared. Usually, experimenters go beyond and compare their groups on background factors. Grossman (1952) did this and found no significant differences. But when he went still further and compared his groups on their expectations regarding therapy he found significant differences. Such expectations he reasoned are far more important in the outcome of therapy than age, sex, and so forth.

Rarely do investigators attempt to measure patients' expectations, although sometimes it is done retrospectively. Sloane et al. (1975) found some interesting explanations for treatment failures by asking about expectations. In brief, the expectations had been violated.

When random assignment is explained to the patient, it may have negative placebo effects by raising doubts as to whether he is receiving appropriate therapy even though we tell him that we do not know which is more effective. This last explanation itself can have negative placebo effects.

We should always attempt random assignment if it is possible to do it without creating expectations and resentments. When we compare institutions and programs, we frequently cannot use random assignment. In this case we should attempt to equate populations on other measures, hopefully including expectations. Caine and Smail (1969) present an interesting comparison of institutions.

While comparisons of diagnosis, severity, expectations, etc., do not assure us of equivalence (Kraus, 1959), we must always be aware that random assignment also does not assure us of equivalence, and that the latter has some disadvantages of its own, including not only placebo effects but also probably a greater selective loss of subjects. The question is not whether bias can be eliminated; rather we must decide how it can be minimized.

There are situations where the regular administrative procedures result in nearly random assignment (without having an experimenter stirring the place with a stick). If, for example, assignment to wards is chiefly on the basis of empty beds, then comparing outcome of these wards may result in less biased findings than would a controlled experiment.

In the Phipps Clinic, where Whitehorn and Betz did their research, assignment to therapists was chiefly on the basis of patient load. Occasionally, a therapist might ask for a particular kind of patient because he had not had an opportunity to work with that type for awhile. Such requests tended to be honored. It would be helpful if the basis for assigning each patient were a matter of record.

We turn now to the second issue: the "control group." While the problems of the biomethodology undoubtedly extend to both experimental and control groups, it is particularly with respect to the latter that the scanty evidence available is most damaging. In 1970, Fiske et al. (Donald Fiske, Howard Hunt, Lester Luborsky, Martin Orne, Morris Parloff, Morton Reiser, and Hussain Tuma, a truly impressive group) wrote: "It is impossible to conceive of a true control group. . ." (1970, p. 24) In view of the number of investigators and critics who are continuing to demand control groups, this judgment seems hardly to have been noticed. It is my hope here to be more explicit and detailed, and thus bring the issue to greater discussion.

Some of my complaint has to do with the

name "control group." Frequently the comparison between the experimental group and the "other" group is of interest; it is substantial and worthwhile. If we could accurately describe what was done to both groups of patients, part of the problem would go away. If a particular type of therapy is compared with "control groups" in two institutional settings, one being a high staff-to-patient private hospital and the other a back ward in a State hospital, it should be clear that the comparisons will not "add up": the control groups are not equivalent, and the comparisons are not equivalent. We have no scientific reason for calling these groups "control groups." However, when we give up the name, we are in effect comparing two or more treatments, as Fiske et al. make clear we should.

But this solution does not end our troubles. It is not uncommon in studies of inpatients to draw both the experimental patients and the "control" patients from the same wards. This is done in the name of, and proof for, "experimental control." It is also not uncommon in such studies for the "control" group to show a deterioration over the course of the experiment (Buckey, Muench, and Sjoberg, 1970; Kraus, 1959; Peyman, 1956; Spear, 1960). Of these investigators, only Kraus discusses the possibility that control group patients feel rejected. It is certainly reasonable that a patient, seeing others getting treatment that was not given to him, should feel that the hospital had given up on him. If alternate treatments are offered, this rejection might be avoided. Still it would be useful to know how the treatments are perceived.

Control groups can cause damage to experimental groups which are on the same ward. "One problem for which no satisfactory solution was found lay in the tendency of some patients in the psychotherapy groups to listen attentively to some of the more intimate revelations of the other patients and to scurry back to the wards and broadcast them to other patients not in the group. This at times led to some embarrassment, and encouraged some members of the two psychotherapy groups to deal only with superficial issues, or else to become significantly less talkative during later sessions" (Peyman, 1956, p. 39).

Control groups in *outpatient* settings are plagued with the problem that controls seek help elsewhere. Even if these contacts are known there is a problem in defining which of the contacts are to be considered therapeutic, which controls are disqualified, and whether the remaining controls are still representative.

It is not my intent to suggest that control groups are not possible in behavioral research. In some educational interventions, control groups have been used successfully. In mental health settings, a control group is feasible where the clinician has advertised for his "patients," or where he seeks out his client (Massimo and Shore, 1963). However, when the patient has a presenting problem, it is doubtful that he can be "controlled."

Turning now to the therapists and how they feel about experiments, we find ourselves in the middle between two fervently held and conflicting faiths, the one insisting upon experimental control while the other insists upon optimum care (see Colby, 1960). It is not surprising that some of the best experimental evaluations are those where the researcher and the clinician are combined in the same person.

The conflicts rarely surface in print, although they are frequently encountered in informal discussion of projects. Sloane et al. (1975, p. 55-56) devote several paragraphs to the conflict and the bruises, but do not indicate that it affected the results in any way. One cannot help but wonder whether "psychotherapists" might not feel more bruised by a controlled experiment than "behavior therapists." Gunderson, Schultz, and Feinsilver (1975) and Grinspoon, Ewalt, and Shader (1972) touch on some problems in relationships between researchers, therapists, and administrators.

By far the most detailed description of the difficulties in a field experiment is that of Rittenhouse (1970). She provides a real-life description of the problems of establishing and controlling the independent variable, of random assignment, of control groups, and of the expectations of therapists, patients, and their families. In some instances she is able to indicate how the problems might have damaged the results. (She does not, however, provide the systematic treatment of patient expecta-

tions which is found in Sloane et al, 1975.) Considering the difficulty of the project on which Rittenhouse reports, all will agree that it was carried off very well. Moreover, the significant findings cannot possibly be explained in terms of the methodologic difficulties. It is not my intention to summarize either the project or its problems. However, some aspects of the study illustrate the need to *minimize* biases.

The rules of experimental design dictate that one first define the population, and then randomly assign each member to a treatment or control group. For human populations this usually means that one must determine not only who is *eligible*, but also who is *willing* to be assigned to the experimental treatment. Accordingly, it was explained to each patient and his family that he might be assigned either to a hospital treatment team, or to a team conducting family therapy at home. To prevent selective losses, they were told that if they did not accept the assigned treatment, they would not be admitted to the other treatment.

The researchers encountered resentments from patients and families who wanted the other treatment, and a number of losses for the same reason, and for the reason that the clinicians asserted their right to transfer patients between the treatments for clinical reasons. Not all of the losses and resentments could be avoided in any case. But if the random assignment had been made on *admission*, and patients told only of their assigned treatment, some false expectations and negative placebo effects would have been avoided, and the biases might have been less than in the uncritical conformity to the biomethodology. This is presented as an illustration of a research choice where biases will accrue in any case and where the task is to choose that method which will *minimize* bias.

Had the experimental program been treated as a "new service," which it was, instead of an "experiment," further expectations and resentments might have been avoided. (The number of natural experiments which we have failed to evaluate is legion.) Finally, it is to be noted that the procedure used is quite "artificial." It introduced forces into treatment that would not be present in a setting where family home treatment is a standard procedure.

These are the chief concerns about the biomethodology:

1. The biomethodology assumes a body of knowledge about which we seek to *prove* or *disprove* certain deviations. When no body of knowledge is available, the biomethodology does not provide a framework for exploration. Seeking proof when we should be exploring is a waste of research resources.

2. The biomethodology does not provide an adequate framework for understanding effects of human expectations which are unintentionally created by the experimentation. Such expectations, of patients or of therapists, can have effects which are both powerful and lasting.

3. The biomethodology discourages the honest reporting of difficulties encountered in the conduct of experiments. It thereby conceals the effects of human expectations, and it prevents our learning how to deal with these "difficulties." It discourages the development of a truly scientific social science.

4. A "control group" is generally desirable, but it may not be possible or desirable in the evaluation of the psycho-social therapies.

   a. If there is a presenting problem, and there usually is, it may be difficult to prevent patients from getting treatment. In these days of pastoral counselors (to say nothing of bartenders), cassette courses, etc., how does the experimenter prevent the patient from getting help? How do we evaluate whether he has gotten help, whether he is still a control?
   b. More important scientifically, our attempts to control the subjects blind us to the fact that the patient's expectations about treatment, and how they are met, are critical variables in the outcome. We will never understand the psycho-social therapies so long as we ignore these expectations.
   c. Control groups can create negative placebo effects that are not adequately handled in most current evaluation designs.
   d. The most frequent design is actually a comparison of an experimental treatment with the "usual" treatment called "control group." The term "control group" blinds us to the fact that the "usual" treatment is quite different in different set-

tings. Such comparisons cannot be expected to "add up" across studies.

e. Given the limitations of our present knowledge, the scientific yield would be greater if, instead of comparing an experimental and a control group, we were to compare two psycho-social therapies, *provided* the two therapies are defined sufficiently precisely (e.g., therapists' personalities) that comparison across studies is facilitated. It is not enough to study "psychoanalysis" or "behavior therapies."

5. Certain scientific principles inherent in the controlled experiment must not be "thrown out with the bath water." Nevertheless, it is probably not true that a principle like random assignment can best be achieved *always* in a controlled experiment. Under certain conditions it might better be achieved in a natural experiment.

6. The natural disaffection and distrust between researchers and clinicians are so great we should come to expect that those who conduct controlled experiments in clinical settings will give us detailed measurements of the clinicians' attitudes toward the experiment.

7. There are no absolute answers in the choice of methodologic tools, the textbooks notwithstanding. We can hope only to minimize biases, not eliminate them. In existing studies, the various kinds of biases have usually not been measured and/or reported. Among these biases are those in the selection of patients and therapists, and those that result from experimental manipulations. It is indeed likely that the "tighter" the experiment, and the more it has intruded upon the clinical setting, the greater are the biases of selection and manipulation.

Obviously, the studies reported in this monograph do not prove, or even illustrate all of these propositions. I mean only to suggest that the simple methods of Whitehorn and Betz avoided many of these problems in that:

1. All measurements and "manipulations" were part of the established clinical routine. They were not part of an experiment. No expectations were created for either therapists or patients.

2. All measurements either preceded the therapy or followed after the therapy had ended. The measurements themselves probably did not affect the therapy. This is discussed further below.

Because of long experience with evaluation studies, I have been sensitized to these issues. I wondered, for example, whether the Phipps therapists would not discover that they had been labeled "A" or "B" and whether this might produce resentments. I have been unable to find such resentments, although I have talked with a number of persons who participated in this research. By contrast, I have encountered resentments in several experiments. A number of techniques have been used to bar me from contact with persons who participated in some experimental studies. In some cases where I had contact, given the context of our discussions, persons who participated should have volunteered their participation, and they did not. In other cases the complaints were openly expressed. I cannot emphasize too much that these concerns are important.

Specific Issues

This section is concerned primarily with the specific implications of the present studies for research in *psychotherapy.* Appendix 1 also discusses a number of specific issues of statistics and psychometrics.

First, with respect to psychotherapy, there is a clear need to define research populations—both of clients and of therapists. With respect to clients, particularly institutionalized clients, diagnosis is critical. In the Loysville data there was an opportunity to try a variety of approaches. For example, a number of efforts were made to combine diagnostic groups in order to achieve greater numbers of cases. Without exception such combinations resulted in "lost findings." There was nothing in these analyses to suggest that the six diagnostic groups could be reduced in number, and indeed, the ultimate reduction "all clients" resulted in practically no findings at all.

There are other aspects of the Loysville diagnoses which are of interest. For the most

part they were made by persons with no training in the diagnostic system. While there is no doubt that diagnoses could have been improved by such training, there is little support here for the position that diagnoses *must* be made by skilled experts. In fact, it is quite possible that overly skilled experts may produce consistent but nonreproducible findings. More important than expertness for research purposes is consensus.

Because of the need to form subgroups of clients homogeneous as to their problems, a large pool of clients is needed. The Phipps data rests on at least 1,300 patients. In the Loysville study we started with nearly 600. The temptation in clinical research is to pick out a couple of major groups and combine the smaller groups. For example, among institutionalized patients, one frequently finds a number of schizophrenics and depressives, and only a few manics, or neurotics, or personality disorders. The fact that there are only a few of these latter does not justify lumping them together. In a number of clinical studies neurotics and personality disorders have been combined. Some findings presented here suggest that when such combinations are made, positive correlations may cancel out negative correlations and all is lost.

But we should not give up hope about numbers of cases. Sometimes, we ask for too much in this regard. For example, in the Phipps data, unless a therapist had at least four patients of the designated diagnosis, his success rate was not computed and he was not included in analyses. In the Loysville data, I experimented with a variety of formats beginning with a minimum of five per therapist and running on down to one per therapist. The number of therapists that can be included increases, of course, but more important there was a steady increase in the number of significant findings as the number of clients per therapist decreased. The statistical theory is considered in appendix 1. It is sufficient to note here that, while we need a large pool of clients to begin with, there is much to be learned by including data from comparatively small subcells.

Turning now to the therapists, there is an equal if not greater need to define our research populations than for clients. Tuma et al. (mimeo) report that the contribution of the therapist is critical even when he is not supposed to be doing psychotherapy, when he is supposed to be merely dispensing drugs. If the "therapist variable" is as important as it appears to be, then we have no business doing psychotherapy research using only a few therapists, and we must somehow define the therapists such that some kinds of statistical controls can be utilized to define our independent variables (aspects of therapy).

The need to define the population of therapists can be shown in several ways. As between hospital and nonhospital psychiatrists, the "A-B Scale" changes its meaning. Presumably, treatment ideologies are not independent of other aspects of personality. In any event, the "A-B Scale" cannot be expected to be valid in most hospital settings. We need a better definition of treatment orientation, better than hospital vs. nonhospital. The issue is discussed further in appendix 8.

In the therapy-analogue studies we are frequently told that the "pseudo-therapists were from undergraduate psychology classes." If, as suggested by the present findings, the "A-B Scale" changes its meaning between psychology majors and premedical students (there are undoubtedly existing data to test this hypothesis further), we need much more information about who the pseudo-therapists are and how they are recruited. Do they know that it is a study of psychotherapy? Do they volunteer? Do they really volunteer, or is the semester ending and they need the lab credit? Is it an advanced class in personality, or a beginning class in physiological psychology? It is likely, that, with respect to the psycho-social area, psychology researchers have not been well served by a too-ready access to human organisms assumed to be representative of all human organisms. While the present findings suggest that psychology majors will give us more understanding of the "A-B Scale" than premedical students will, still the flight from psychology major to psychotherapist is probably too great.

In therapy studies, and in therapy analogue studies, it is essential that the researcher think about and try to define *how* his population of therapists might differ from a more generalized population of therapists. In this connec-

tion, we probably need a great deal more understanding of such aggregations as "psychoanalyst," "behavior therapist," etc. than we now have.

Variations in response rates among various portions of a population may reveal that the population is really not homogeneous. In one study reported here, it was such variation which suggested the differences between hospital and nonhospital therapists.

While I have no evidence, I have discussed the possible differences, not just in outcome, but also in observed relationships among variables, between experienced and inexperienced therapists. This issue deserves considerable attention.

Although the reversal in the meaning of the "A-B Scale" for various populations (the semantic reversal) helps to explain the conflicting findings in the literature, it actually raises a number of questions for clinical research and for personality research in general. It makes sense that persons with high empathic interest would view the manual occupations in a quite different context from those with low empathic interest. But what are these contexts, and why does their view of these occupations seem to have opposite meanings? How frequent in personality research are such reversals and what implications do they have for mathematical models like factor analysis which, in effect, bury them?

The functional reversal of the "A-B Scale" also remains mysterious in spite of new light shed upon it. The various possibilities were outlined in the last chapter and will not be repeated here.

Finally, with respect to therapists, "the therapist variable" is not a variable. It is a collection of variables, and the collection probably varies as we pass from one diagnostic group to another. There is good reason to believe that empirically derived predictors of success should *not* be homogeneous or internally consistent. Each of the diagnostic groups for which we have adequate data turns up more than one success factor, and there are probably many more, if only these additional factors had been included in our instruments.

As is always the case with exploratory research, there are many thought-provoking loose ends in the chapters above (e.g., "snakes," "side-show freaks," "DCIVIC," "geography"). Moreover, many of the central variables are not adequately measured (e.g., empathic interest, tolerance for ambivalence) although their test-retest reliability may be much higher than their internal consistency. On the one hand, we must not be carried away by such provoking loose ends, some of which may be dead ends. We must view them with caution without disparaging them, thus demonstrating our own low need for closure.

It is useful to take yet another look at the Phipps Clinic data, not so much from the standpoint of what we have learned from it as from what we have yet to learn. The purpose of this exercise is not so much to define a research project as it is to illustrate significant considerations in any naturalistic clinical research.

It is likely that the great strength of the Phipps data is in the recording of outcome, systematically, over many decades. Some have complained about the subjective nature of the judgment "improved" even though considerable objective data were available to those making the judgment. There is also concern over the fact that the therapist himself participated in the judgment.

There are available, at the Phipps Clinic, nurses' behavior charts. What findings would emerge if criteria derived from these charts were used instead of the global improvement measure? Moreover, it is likely that these charts could yield nuances of improvement not available from the overall judgment. In the later years, for example, *all* depressives improved.

It would be very valuable to compute therapists' success rates with finer classifications of clients: (1) male vs. female, within diagnostic groups, (2) for schizophrenics, process vs. reactives (Betz, 1963), (3) for depressives, neurotic vs. psychotic, and so forth. Can anything be learned from the relatively few manics and personality disorders that were identified? More attention needs to be paid to combinations of therapies: psychotherapy, insulin, ECT, and drugs (e.g., Whitehorn and Betz, 1957). There may be other resources like the Phipps Clinic that are ripe for exploration. However, unless they contain *systematic* data on outcome, they are unlikely to be useful.

The present research leaves unanswered the question of whether the personality of the therapist is simply a *convenient*, inexpensive approach to what is important in therapeutic processes, or whether understanding the personality of the therapist is *essential* to understanding therapeutic processes. Are there subliminal communications which are difficult for the researcher to observe? In one study that did include both personality variables and behavioral ones, the personality variables appear to be more potent (Alexander et al., 1976). This issue may be critical to research strategies in the psycho-social therapies.

One issue has been avoided in the present research. By using "improvement" as the dependent variable, we have not dealt with the problem that various diagnoses may require different specific outcome measures. Moreover, different vantage points may be involved: while neurotics usually present themselves for treatment, psychotics are frequently brought to treatment by their families, and sociopaths by the courts. The dependent variable is, therefore, in interaction with a control variable.

Finally, there is a further complication that is almost universally ignored, although it would be easy to present anecdotal evidence that it should not be, namely: the impact of the dependent variable on the independent ones. It is not uncommon in evaluation studies to find that the helpers are adapting their interventions to the criteria of evaluation. Teachers teach things that are likely to be on achievement tests. If in a large experiment it is decided that symptoms are the major criterion of change, how do we know that this does not concentrate the therapists' attention on symptoms and their reduction, rather than on understanding the problems they deal with. If, indeed, this were the case, then the evaluation design itself would contribute to deterioration among schizophrenics. We must watch, therefore, for interactions among the dependent, independent, and control variables.

Chapter VIII

Summary

These studies began with the relatively simple, naturalistic methodology used by Whitehorn and Betz in their studies of psychotherapy effective with schizophrenics. When extended to a variety of disorders, the methods yield meaningful, consistent, and replicable findings. Moreover, we have extended this methodology to milieu therapy. The personality characteristics of effective therapists can be used to define therapeutic relationships and the resulting findings yield implications for what it is that effective therapists do.

However, there is little that defines the effective therapist in a *general* sense in these studies. Instead, specific personal tendencies and interests define effectiveness with particular types of mental or behavioral problems. There is therefore no support for the "generalist approach," but there is a great deal of support for the differential hypothesis that different disorders require different treatments. (The present studies do not include a measure of therapists' personal adjustment. It is possible that personal adjustment is a general trait of effective therapists.)

If future studies continue to confirm the differential hypothesis, the implications of the finding are widespread. For one thing, diagnosis is a critical variable. Evaluation of services is impossible unless consideration is given to the type of problem the client presents.

As we learn more and more about the specific needs of particular kinds of clients, we must also learn the extent to which therapists can and will adapt to different kinds of clients. If therapists adapt, there is little problem. If they do not, then we must understand how clients get to therapists and whether these paths are optimal.

By definition, a milieu cannot adapt to different kinds of patients. And indeed, there is some evidence that opposite kinds of milieus are needed for some kinds of disorders (e.g., schizophrenics vs. sociopaths). It seems likely that milieus will have to specialize in particular disorders.

There are many specific findings in these studies. They range from some which are replicated to others which are best regarded as good hypotheses for further research. Among the replicated findings is one that neurotics are *not* well served by therapists who like to solve problems. Evidence is presented that this finding supports Freud's contention that the neurotic must solve his own problems. The therapist should do little more than ask appropriate, not too leading, questions.

This replication is found for two very different groups of neurotics served by two very different groups of therapists. One group is of severe neurotic adults hospitalized at the Phipps Clinic of the Johns Hopkins Hospital and served by highly selected psychiatric residents. The other group is of neurotic delinquents in a Youth Development Center at Loysville, Pennsylvania, and served by staff members with considerable experience, but for the most part without even a college education. One the one hand, this replication emphasizes that personality factors in the therapist transcend his education and the setting in which he works. On the other hand, the replication emphasizes anew the large overlap between "mental health services" and "corrections."

A second replicated finding suggests that schizophrenics are best served by a therapist who is active and personally involved with the patient. It is possible that this active involvement is not so important when drugs are prescribed. But regardless of whether drugs

are prescribed, schizophrenics must be treated with tolerance and understanding. These findings are consistent with the original findings of Whitehorn and Betz.

Other detailed findings of a substantive nature are presented in chapter VI.

The specificity of the findings suggests that the generalized techniques which are lauded and taught are not all that general, but rather specific to specific problems. The proscription of problem solving appears to be specific to the neuroses. We need to define specific aspects of the psycho-social therapies, and the specific uses of these aspects. The studies underline the need for comparative studies of psychosocial approaches to various mental disorders.

In the measurement of personality, the studies indicate that if a personality scale contains items of which the meaning is not manifest, the items and the scale may not have the same meaning for different subjects. Or, stated another way, if an item can be interpreted in a wide variety of contexts, it may not yield findings which are reproducible over different groups of therapists. Specifically, the Whitehorn-Betz "A-B Scale" is found to reverse its meaning as between hospital and nonhospital psychiatrists. It is not surprising, then, that the "A-B Scale" has failed to produce completely consistent findings across all the studies in which it has been used. It will not yield consistent findings unless certain characteristics of the therapists are controlled in selection or analysis.

Thus the studies emphasize the need to define the population being studied, both of patients and of therapists. Populations must be defined, methods of sampling must be made clear, and the proportion of the sampled population that actually participated should be reported.

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Appendix 1

Statistical and Psychometric Considerations

There is a perennial problem in applied research, namely: How can the practitioner and the methodologist communicate with each other? Both are too busy to become expert in the other's field, and so communicate they must. All too frequently the communication consists of "little rules" laid down by the methodologist. Samples should be such and such; reliabilities should be such and such; and so forth. The problem is that while the little rules may be valid in some general sense, all too frequently they do not fit the purposes at hand. Specifically, the little rules usually serve researchers who are doing basic research in a highly developed content area far better than they serve those who are trying to explore an area where little is known. Moreover, the little rules of psychometrics serve the area in which they were developed, ability testing, far better than they serve the area of personality testing.

There are a number of these little rules that may fail to maximize returns in exploration: test construction is best served by multivariate linear models resting on the Pearsonian r; scales should be long, i.e., consisting of many items; scales should be used in their entirety, never piecemeal; standardized tests are inherently superior to those not yet standardized; reliabilities should be established at each step in the measurement process. All of these rules are functional under certain conditions. Frequently, they are not functional for exploration.

Criterion-Based Tests

Very fundamental is one of Nunnally's little rules. (Jum Nunnally's book, *Psychometric Theory*, 1967, is undoubtedly a classic that should be read by anyone with an interest in the area. But the book does have a viewpoint, which means that it must be taken with a grain of salt for some purposes.) Nunnally writes: "There are two *incorrect* ways to construct tests: one is to select items according to their correlations with a criterion. . . ." (p. 245, emphasis in the original). Under this rule, Whitehorn and Betz should never have produced the "A-B Scale," and indeed many of the analyses reported here are "incorrect." Nunnally is concerned with "meaning." One should start with content and aim hopefully at eventually validating a construct, chiefly through empirical correlations.

I, too, am concerned with meaning. But I am quite willing to recognize the importance of certain criteria, to start with them, and to seek meaning, and theoretical constructs, through empirical correlations. The goal is not in dispute. The dispute centers on what is the most efficient way of getting there when there is little existing knowledge to start with.

It would be very easy to assign a common meaning ("manual") to the following three items: "cabinetmaking," "repairing a clock," and "machinist." But from the standpoint of certain criteria, the correlations among them being small, the three items fall into three different clusters: SQUEST, NSOLVE, and SD. "Cabinetmaking" is not so much "manual" as it is "lonely" (nonextrovert) correlated positively with "marine engineer," and negatively with "conventions." "Repairing a clock" is not so much "manual" as it is "problem solving."

This highlights the problem with most items in personality tests (including projectives as well as questionnaires). Whereas, a column of figures with a "+" sign is likely to be seen as arithmetic, most items in personality scales

can be viewed in a variety of contexts. If is difficult to know in advance what context different viewers will use. This may reflect the fact that personality tests are in their infancy by comparison with ability tests (which Nunnally emphasizes).

But even for ability tests, where an ability is little understood, it may be well to start with a behavioral criterion and find its empirical correlates. If the behavior is a phenotype, it likely will not generate correlates with a single meaning (pages 11-12). In the case of the "A-B Scale" the wooden application of rules about internal consistency and common meaning resulted in efforts to homogenize items that should not be homogenized. As a result, the active expression dimension uncovered in chapter III was missed completely for years.

When Nunnally insists as he does that items should never be correlated with a criterion of success, but always with each other or a *known* psychological construct, he is, in effect telling Copernicus to start with Aristotle's concepts. In the case of the present research, the somewhat shaky, but replicated SXPRSA cluster, together with its nascent construct tentatively called "active social expression," is not well measured in existing standardized personality tests, most of which measure broader, more inclusive aspects of sociability. It is likely, though by no means yet evident, that *for the purposes of exploration*, existing personality tests should be viewed as item pools for correlation with various types of criterion variables.

Indeed, concentrating on constructs in standardized tests has been one of the limitations of many psychometric approaches to the meaning of the "A-B Scale." While the standardized tests have shed a little light on the "A-B Scale" there has been little agreement about that light. What is needed is some hard thinking about the needs of schizophrenics. When we do this kind of thinking, the standardized tests are found wanting. (Other standard psychometric approaches that probably have not furthered our understanding of the "A-B Scale" include lengthening the scale by adding correlated items, homogenizing it, and using its items out of context. See pages 18, 108, 113, and 143.)

It is possible, then, to write a rule diametrically opposed to Nunnally's, namely, *if an area is being explored*, then investigators should not be bound by existing psychological constructs. They should regard standardized tests as item pools to be run against a significant criterion in the area they are exploring. But note the "if" clause; the only satisfactory rule in research is that the tools and the way they are used are determined by the objectives of the research.

Hypothesis Testing in Exploration

There are two types of hypotheses: statistical and scientific. The basic statistical hypothesis is the null hypothesis. It is set up usually with a hope that it can be destroyed by the data. If we can destroy it, we accept an alternate hypothesis, one that has scientific implications that, for example, A is greater than B, or A is positively related to B, and so forth. We may be forced to accept the null hypothesis if, in fact, *we are studying the wrong variables*, *or* we have failed to measure properly, *or* we chose the wrong statistical test, *or* for any number of reasons. If such errors are *non*random, they can lead either to acceptance or rejection of the null hypothesis. If, however, they are random, they contribute to acceptance of the null hypothesis.

It is particularly not impressive to accept the null hypothesis in an area where little is known (random variables), or when methods are not established (random measurements), unless there are other evidences that the various negative contingencies above probably do not apply. If there are substantive findings from the same data, then accepting the null hypothesis has more significance than is the case when all the findings are null. Specifically, in the present studies, failure to find significant correlations among criterion variables would be of no interest whatsoever were it not for the other meaningful findings that emerge using these criteria.

It is easy to assume that our knowledge is greater than it is. If we assume that we know the salient variables, know how to measure them, and so forth, then we can attach undue

importance to a series of null findings. For example, Bergin and Suinn write: "Differential effectiveness of techniques is not well established" (1975, p. 525). This could easily be interpreted as a suggestion that differential techniques have been demonstrated to be ineffective. In a field where very little has been established, where the null hypothesis is accepted more often than not, such an interpretation is unwarranted.

The other danger of overinterpreting an acceptance of the null hypothesis is in assuming that others, who have not had to accept the null hypothesis must be wrong. The "A-B Scale" has been used by literally hundreds of investigators, many of them with meaningful results. If an investigator uses the scale with null findings, it is more reasonable for him to suggest reasons for the failure of his own data, than for him to attack the research which produced the scale in the first place.

In exploration, hypothesis testing has a different purpose than it does when we seek to confirm or deny a particular aspect of existing knowledge. The investigator has a hunch that some variable is important. The task in exploration is to assess which variables are important and to provide hunches about their dynamics for further research. Variables might be considered important if they correlate highly with a criterion. While this is a useful principle, it breaks down in practice because of the large number of measures of association that are available, each yielding a different value, and because such things as the number of cases and levels of measurement influence how large a correlation coefficient may be. Moreover, some data must be approached with statistical tests for which there is no measure of association. Where different kinds of variables with different distributions and different levels of measurement are being studied, the only common comparison that can be made among relationships is the probability that can be attached to the relationship. This is in stark contrast to the situation where our question is whether to accept the alternate hypothesis; in that situation we must establish an *a priori* level and either accept or reject on the basis of that level.

Finally the question is frequently asked whether the findings as a whole are significant. This is usually done by comparing the number of observed significant relationships with the number that should be expected by chance. Such an approach burdens exploration with proof. There can be no proof in exploration, nor should there be. None of the present studies purport to prove that the personality of the therapist is important. The Lionells study reported in chapter II is addressed to this question. Nor is it suggested here that the SVIB is the ideal instrument to measure the personality of the therapist. The question addressed here is: If the personality of the therapist is important, how *might* it affect the outcome? Only in studies where the personality of the therapist is studied *in relation to other factors*, can its importance be assessed (e.g., Tuma, *et al.*, mimeo).

It is curious that the success criterion for Manipulators produces, of 400 items, 50 significant at .05 (table 26), while the success criterion for Subcultural Identifiers produces only 18 (table 27). The number of cases involved are similar, 46 youths and 41 helpers for the latter, and 42 youths and 45 helpers for the former. If we had data only for Manipulators, we might be tempted to conclude that the analysis is worth reporting. Conversely, if we had data for only the Subcultural Identifiers, we might be tempted to say that the data are a waste of time. Neither conclusion is justified since proof that the SVIB is a useful tool is not the subject of investigation.

There is yet another reason why the latter conclusion is unwarranted. In order to assess "chance" we must have appropriate tests of significance. For most of the tables presented in this report, no such tests are available. See the section below, "Clustered Samples."

For clinical purposes, the question is rarely of proof, but what is the best evidence available? For research purposes, when we are exploring we are not concerned with whether the findings as a whole are significant; whether we have "proven" something. Rather we are seeking systematic evidence about what variables might be important and under what conditions they might be important. At the same time, "explorers" must make plain the limited nature of their "proof."

Measures of Association Used in These Studies

Two measures are used: the Pearsonian product-moment *r*, and *gamma* (Goodman and Kruskal, 1954; Somers, 1962). Underlying *r* are a number of statistical assumptions—continuity, normality, linearity, homoscedasticity and interval measurement. Underlying *gamma* are only two assumptions: the variables consist of ordered classes (or only two classes) and the relations, if curvilinear, are at least monotonic (do not reverse).

The assumptions underlying the Pearsonian *r* and the resulting distribution of the statistic are such that only one thing needs be known to test whether a given correlation is significantly different from zero: the number of cases. No such assumptions underlie *gamma*. An accurate significance test for *gamma* requires that we build into the test the marginal distributions (Kendall, 1955, p. 45-46; Hays, 1963, p. 654). The numerator of *gamma* is identical with that for Kendall's tau, and the significance test is likewise identical. The denominator of *gamma* has been chosen such that the coefficient can be interpreted as the proportion of nonreversals in ranking on the two variables.

Most of the variables in the present study are of three types:

1. Criteria (therapists' success measures). Continuous variables, but sometimes skewed.
2. Personality scales, predictors, and clusters. Built from at least three items, they generally consist of at least seven ordered classes. Only one of them is so badly skewed (Work Activity) that *r* is possibly inappropriate. The Work Activity correlations in table 16 fall short of significance when *gamma* is substituted for *r*.
3. Items. Responses consist of three or four ordered classes: true/?/false; like/indifferent/dislike (PTQ, SVIB); agree very much/ agree somewhat/ disagree somewhat/ disagree very much (Quay).

Generally speaking, in the present analyses, *r* is used for relations among criteria, among scales, and between criteria and scales. It is also sometimes used among items, though not ideal for this purpose, because coefficient *alpha*, the most popular measure of internal consistency, is related mathematically to *r*. Another reason is that presently available computer programs for *r* are much more efficient than are those for *gamma*. If there are a large number of intercorrelations to be computed, *gamma* can become expensive.

Gamma has been used to relate items to criteria. In personality tests, responses to items are frequently "U-shaped," not "hat-shaped," since people tend to polarize on some kinds of issues. If *r* is used to relate a "U-shaped" distribution to a skewed criterion, a few extreme cases can result in a significant *r* even though there is no relation at all for most of the cases.

The differences between *r* and *gamma* can be highlighted by considering item 236, Energetic people, in table 13. The *gamma* is large, −.72, indicating that 72 percent of the rankings do not reverse. But this is largely due to many ties. Of the 32 therapists, all but 5 say they like such people, and those 5 are indifferent. The significance level for the *gamma* is therefore only .09. The Pearsonian *r* for these same data is .35, significant at .05. In other words, had *r* been used for screening items, this item would have been accepted even though, because of its skewness, it contributes little to accurate measurement.

Some psychometricians will insist that the criterion should have been transformed to normality, so great is their commitment to the linear model. But how do you transform to normality if nearly half the therapists are successful with all their patients as is the case for this particular criterion? Some will suggest that the data be thrown out. Yet here are data that are irreplaceable (pages 16, 20), very costly to produce, and at hand. Do we still have the right to insist on the linear model? Such cavalier attitudes are being recognized and resented by interested representatives of the public. Such attitudes do not serve our own long-run interests.

In some tables presenting *r's* for scales (tables 9, 16, 19, 23) there are two variables which are single items (SCIENC and STNDRD). For these two, *gamma's* have also been computed and tend to be reasonably similar to the r's shown in the tables. The significant *gammas* for STNDRD are: TOTAL S .45 at .09; S .61 at .02; SXPRSA .67 at .02, and

SXPRSS .83 at .005. The significant *gammas* for SCIENC are: TOTL N – .38 at .03, N – .34 at .04, and NSOLVE – .49 at .002 (Cf. table 16).

Finally, analyses were undertaken to determine whether "?" is on the same dimension as "true" and "false," i.e., whether it "lies between them." The problem is similar for "indifferent" in relation to "like" and "dislike." If "?" and "indifferent" are on other dimensions, the monotonic assumption is inappropriate. The information statistic (Kullback, 1968) makes no such assumption. If the significance level of the information statistic is found to be more extreme than that for *gamma* from the same data, there is reason to question the assumption of monotonicity. Of the relationships so compared, less than 1 percent showed a more extreme level for the information statistic. This is not proof of dimensionality and monotonicity, but it suggests at least that the assumptions are not violated by the data.

In scoring items, the numbers 0, 1, and 2 are assigned to True, ?, and False (or False, ?, and True, depending upon how the item is keyed with respect to the scale). Scale values range from zero to a maximum which is twice the number of items.

Clustered Samples

Degrees of freedom are a function of sample size. But what is the sample size? The confusion arises from the various ways that the data can be conceptualized. In the present studies, we think of the analyses as concerned with the personality of the therapists. The sample size is the number of therapists. If, however, we think of therapeutic process as related to "dyads" or "matches" between client and therapist or that certain clients were exposed to psychotherapy, the number of cases becomes the number of clients (Berzins, in press). Consider, in table 11, item 221, Expressing judgments publicly regardless of criticism. If this is seen as the responses of 35 therapists, the *gamma* is .31, p. = .08. If it is seen as a characteristic of 282 dyads, *gamma* is .25, p = .01.

Most statistical tests assume a simple random sample, i.e., that each unit was selected *independently* of all others. This assumption is rarely achieved; rather, units come into the sample in clusters. The appropriate theory is that of cluster sampling where the degrees of freedom are reduced in effect by the intraclass correlation within the clusters (Kish, 1965).

In one study of 10 therapists and 17 patients, the degrees of freedom are apparently assumed to be approximately 200, since that many segments of therapy were rated (Tourney et al., 1966). Another study evaluated milieu therapy on 43 patients in *two* wards. The number of cases is assumed to be 43 (May 1968).

Consider two statistical problems: In one there are 35 therapists treating an average of *three* patients each. In the other there are 35 therapists treating an average of *five* patients each. Clearly, these two problems are not identical from a statistical viewpoint. It hardly seems correct that the number of cases is identical. On the other hand, it is doubtful that the difference in number of cases in these two studies is of the order 105 to 175.

The usefulness of cluster sampling theory in practice is limited by the fact that relatively few kinds of tests can be applied and computer programs are not generally available. The main usefulness of cluster sampling theory, and of a frequent ally, stratified sampling theory, is in reorienting us toward "error." Instead of insisting on certain levels of reliability in measurement at each stage of measurement, the entire enterprise is viewed as designed to produce findings, i.e., error enters the measures in proportion to the cost of removing it at the various stages considered all together.

In the present studies, we are not really interested in how effective each therapist is. Rather we wish to compare groups of therapists who have varying characteristics. If we accept a therapist who has only one client, we may reduce the total error more by increasing our sample by one, and eliminating a source of bias through exclusion, than we would lose by accepting the relatively unreliable measure on that therapist.

The phrase, "bias through exclusion" introduces a different idea. Up to now we have been talking about random error. If we exclude certain measures as unreliable, we may in fact be excluding certain kinds of therapists. Thus biases are introduced. There is no way for statistical tests to allow for biases. In fact, the

more frequent the errors of bias, the more likely that statistical tests will support erroneous findings of substance.

Beyond the conceptualizations remain some difficult practical problems. In the present studies we have taken the "conservative" course: the number of clusters (therapists) is the number of cases. The Loysville sample is clustered not only around therapists, but also in that some youths were helped by more than one therapist. Thus therapist measures are not independent of each other. As noted above (page 60n) this clustering is also conservative. Criteria are biased toward the mean in a way that is likely to militate against achieving significant findings.

Construction of the PTQ

In order to persuade a reasonably high proportion of mental health professionals to respond to the PTQ, it was decided that the length should be such that it could be answered in half an hour. At the same time it was felt that the objectives required that the PTQ contain at least 30 scales. These objectives run afoul of two widely held psychometric notions: the "length of the test," and "full scales."

One of the first principles of psychometrics is that the reliability of measurement is proportionate to the "length of the test," the number of items in the scale. Psychometricians have been blessed (or cursed) with subjects who have little choice but to "cooperate" (students, patients, etc.). There can be no assurance that the subjects will actually read all the items, so if the test is very long, it is necessary to add still more items which are such as to reveal that the subject is simply making check marks.

Interview researchers are actively concerned about rapport and the motivation of the respondent. In the impersonality of the testing situation, these issues tend to be forgotten. The point here is that flagging motivation can more than compensate for the increase in reliability of a longer test. Worse still, if the subject can choose not to participate, nonresponse can introduce biases which are simply exacerbated by increased reliability. As the well-known mathematician and statistician Harry Carver used to say: "The error is made very accurately."

Related to the notion of a "long test" is the notion of "full scale:" if a scale is taken from the literature, it must be used in its entirety, not just a part of it. Reproducibility demands that exactly the same measuring techniques be used. In practice, the idea breaks down because the literature is not standardized. There are, for example, at least 20 different versions of the "F Scale" in the literature. Beyond that, there are instances where using the full scale is not only wasteful, but likely to assure that the results are not comparable. The "F Scale" contains an item that homosexuals should be treated as criminals. All mental health professionals reject this item; it therefore contributes nothing to measurement. Worse still, they resent it; it is a rapport breaker; they wonder whether the investigator knows what he is doing. In this sense their responses cannot be comparable to those for whom the idea of punishing homosexuals severely is not outlandish.

Even though an item is not rejected, it may have a specialized meaning in a specialized population. Consider the following two items:

> A man who truly loves a woman must regard her as the best in the world in every important respect.
>
> We may confidently expect that mankind will someday attain a stable social order in which marital infidelity will be unknown.

Irvin L. Child found that, in a cross-sectional population, these two items are positively intercorrelated and negatively correlated to a scale that he calls "Tolerance for Complexity." A population of mental health professionals is rather more sophisticated about love and marriage and they view these two items quite differently. Responses to the items are not correlated (−.02) and do not correlate with the total scale. They were therefore not included in the final scoring. (For a variety of reasons, a number of items were not included; accordingly, the scale was renamed "Need for Closure" and inverted. See table 31.)

Sometimes a scale is a composite of related scales. Child (1965) sometimes combines his Tolerance scales (Complexity, Ambivalence, Unrealistic Experience) into a single scale. Similarly, the Protestant Ethic of Mirels and

Garrett (1971) contains several related dimensions: work and leisure, spending, etc. At the time the PTQ was designed, it was felt that the work aspect was the important one. While subsequent analyses suggest that the spending one is also important, still it is clear that so far as the psycho-social therapies are concerned, the two aspects are distinct. Had the whole scale been included and scored as such, this insight would have been lost (see appendix 8).

In short, long scales and full scales would have been possible only by sacrificing more than half of the dimensions investigated, or by suffering a greatly reduced response rate. Full scales would not have assured comparability, and might have masked the varying usefulness of subscales.

It might well be asked: How can we achieve reproducibility in personality measurement? It won't be easy, but it seems more likely that we will achieve it if we think about the constructs and the populations we study than if we apply some wooden rules.

The PTQ was constructed item by item. Selection of SVIB items is discussed in appendix 5. For the other PTQ scales (the manifest personality scales), items were included if they appeared to relate in any way to how people might react to a schizophrenic, success rates with depressives and neurotic patients having become available too late to rethink the PTQ.

An item was excluded if there was any evidence that it might be answered in the same way by all or nearly all respondents. This evidence came largely from analyses of the first PTQ which had been used in the pilot investigation reported in chapter III. That instrument contained, in addition to a sentence completion test, an 18-item A-B predictor, and an 8-item Kemp extension (Kemp and Stephens, 1971). It also contained items from Barron's Independence of Judgement Scale (20), Child's Tolerance for Complexity (17), Ambivalence (10), Unrealistic Experience (9), Ambiguity (3), Deference Anxiety (3), Preference for Intellectual Challenge (3), Preference for Decision Making (3), Preference for Work Activity (3), Singer's Regression in the Service of the Ego (20), and the author's Need for Order (3). Four of the Independence of Judgement items and five of the Tolerance of Complexity items were from the F scale, thus giving a nine-item F scale.

In revising the PTQ, more items were added to some scales, and more scales were introduced. The composition of the revised PTQ is presented in tables 6 and 31 to 50. (A second revision of the PTQ is discussed in appendix 8.)

A major concern was rapport with the respondent. Instead of requiring a True-False answer, the respondent could check a "?" if he wished. This probably enhanced measurement; see page 106. The Kemp extension of the A-B predictor was dropped for a variety of reasons including the fact that it contains an item about bowel movements which struck some respondents as being out of place.

Any item which could be seen as measuring adjustment was eliminated. The therapist's own adjustment is probably a critical variable in therapy (see page 8), but measuring personal adjustment requires a great deal more acceptance of the researcher than is possible in a mailed questionnaire. (It might possibly have been included for the Loysville study.) Mental health professionals appear to be more willing to be evaluated psychologically than do most of the public. But it is precisely those who might be sensitive that would be missed.

Even beyond this concern not to measure adjustment was a concern not to include items which could be interpreted as measuring social desirability. In fact, it was partly the neutral aspect of Child's items which attracted me to his work. This is considered in the next section.

Social Desirability

It is not uncommon to find that much of the variance in personality scales is taken up by a factor which represents the socially desirable responses to each question. This response set is not only a characteristic of personality tests; it varies also by individual. Frequently a social desirability scale is built into the test so that allowance can be made for this set.

Another approach is to seek neutral items. As noted above, Irvin L. Child's items tend to be descriptive rather than evaluative, and this was my concern in choosing items for the PTQ. A number of analyses were undertaken to

check whether the items chosen were indeed "neutral".

Seven judges independently gave "the socially desirable response" to each item. Of 232 items, there were only 41 for which at least six of seven judges agreed on the socially desirable response. These items were scored in several ways. The common characteristic of the resulting measures is that they correlate very much like the particular substantive scale which contributes the most items. In other words, we failed to find any independent social desirability scale.

Next, we put all 232 items into a single factor analysis. Usually, this process results in the first factor being "social desirability" and explaining much of the variance. In the PTQ no single principle component explained more than 6 percent of the variance. No rotated factor explained more than 5 percent of the variance. No component or factor could be identified that had as many as 14 of the 41 items on which there had been interjudge agreement as to the socially desirable response.

The letter to respondents contained the following paragraph:

> There are no right or wrong answers to the questions. No item has been included because it measures adjustment, or mental health, or intelligence. Rather the items are concerned with various ways of thinking or acting.

It is unlikely that all potential respondents accepted these assurances. But it was gratifying to see one day, scrawled across the front of one PTQ: "This is a fun test."

Internal Consistency of Scales

One of the most popular of the various measures of reliability, homogeneity, and/or consistency is coefficient *alpha* (Nunnally, 1967, p. 196). It has a variety of interpretations, of which one of the easiest is that it is the average of all possible split-half reliabilities. There are, of course, many measures of reliability, and they do not all give the same answer.

For the manifest personality scales in the PTQ, items were excluded beginning with that one least correlated with the total score. If such exclusion resulted in an increase in coefficient *alpha*, the item remained out of the scale. This was done using the 133 mental health professionals and professionals-in-training (table 7). Using this wider group made it possible to compare covariance and correlation matrices of PTQ variables for various subgroups of the sample, an important part of the analysis in chapter IV. The values of coefficient *alpha* for these scales are given in table 6.

For the A-B clusters, it is not appropriate to expect internal consistency for the 133 mental health professionals and professionals-in-training, since many of these clusters clearly have different meanings for different subgroups. For the clusters derived from the 35 therapists who did not prescribe drugs, the average *gammas* given on pages 43ff. tend to overstate the internal consistency since these *gammas* were used to form the clusters. For the PTQ's from the nonhospital therapists, coefficients *alpha* for the A-B clusters are as follows: SD, .84; SXPRSA, .49; SXPRSS, .08; SQUEST, .17; DBUSNS, .72; NSOLVE, .68; NQEST1, .15 and NQEST2, .03.

A curious observation is that some scales with very low *alphas* consistently generate correlations with other variables. For Empathic Interest, *alpha* is .24; for Tolerance of Ambivalence, it is .25. Yet both scales generate meaningful correlates (tables 16 and 19). These latter could easily be random. But we need to think carefully about the assumption that items *in personality tests* should generate large *alphas*. As noted above such items tend to tap more than one domain, or have the potential to be interpreted in more than one domain. For this reason, there may be a low correlation among personality items (there usually is) and still they may have a common domain. The item, "Science should have as much to say about moral values as religion does" would seem to involve at least three domains: the worth of science, the need for moral prescriptions, and the role of religion. Depending upon the viewpoint of the respondents, and the way it is combined with other items, it probably could contribute to at least three genotypic variables. Barron probably had in mind acceptance of religious prescriptions when he tried the item for his Independence of Judgement scale. Our nonhospital psychiatrists apparently see the item as concerned with the worth of science.

Some will argue that it is a bad item, that it should be purified: "Science should have more influence." Or: "Religion should have more influence." What is missed in such criticism is the fact that these pure items are answered in *some* context, this context being supplied by the respondent instead of by the researcher. There is no assurance that short simple items will be answered in a common context.

And so this appendix ends as it began, questioning whether the usual statistical and psychometric rules serve the purposes of exploring the personality of therapists as well as they serve the areas in which they were developed.

Appendix 2

Possible Personality Correlates of the "A-B Scale"

(This paper was written in the fall of 1972 before the second study was begun. Its contents are not necessarily consistent with the present material. It explains, in part, the construction of the Personal Tendencies Questionnaire.)

It is now a dozen years since Whitehorn and Betz (1960) published the A-B Scale. Although these years have seen at least 150 articles and dissertations in which the A-B Scale played a central role, we seem to have very little understanding of what the scale means. The present paper is concerned with possible meanings of the A-B Scale. There are a large number of possible meanings; presently available evidence does *not* permit us to choose among them. The purpose here is simply to present a number of possible meanings.

The reader is referred to two excellent reviews of the A-B literature (Razin, 1971; Chartier, 1971), and to articles cited below which have been published since 1969, the cut-off date for those reviews. There is very little in this literature concerning A-B as a concept. While there is some divergence in the appraisals of the empirical usefulness of the scale, when one considers (1) how little we understand it, and (2) how unreliable are our diagnoses (and even our ideas about diagnoses), one is impressed with the degree of consistency that runs through these studies that *A therapists are more effective with schizophrenics, while B's may be more effective with neurotics.* If this is the case, then these items from the Strong Vocational Interest Blank stand for a very powerful variable, or set of variables, indeed.

During most of its 12 years, the A-B Scale has lived primarily in the Henry Phipps Clinic where it was developed, in the nearby Sheppard Pratt Hospital, and in the psychological laboratories of several universities. In these laboratories, make-believe therapists interacted with make-believe schizophrenics and neurotics with results that almost always produced an interaction among the Scale, diagnosis, and some dependent variable. It would be an interesting study in the sociology of science to explain why the research has developed in this fashion.

Recently, it has broken out of these bonds with results disappointing (Bednar and Mobley, 1971, Bowden, Endicott, and Spitzer, 1972), possibly encouraging (Shader, Grinspoon, Harmatz, and Ewalt, 1971) and definitely encouraging (Berzins, Ross, and Friedman, 1972). Where earlier studies were primarily with therapists in training or with quasi-therapists, the last mentioned is with experienced therapists. The interaction was confirmed suggesting that the personality attributes underlying the A-B Scale are not easily modified by the therapists' own experience with different types of disorders. Perhaps if we can learn the meaning of the scale, therapists can learn to adapt.

The present paper speculates about the meaning of the scale and about the possible puzzling contradictions it may contain. It should not surprise us that the A-B Scale is puzzling. The schizophrenias are very puzzling disorders. It is possible that the puzzles await a common solution and that whatever sheds light on one of them will help with the others.

General Characteristics of the A-B Scale

There are in fact a number of A-B Scales (Kemp and Stephens, 1971). Some are efforts to

shorten the original scale, some are efforts to lengthen it, while one is an effort to adapt it to the revised form of the Strong Vocational Interest Blank (Campbell, Stephens, Uhlenhuth, and Johansson, 1968). Of interest is the fact that the interaction tends to appear regardless of which form is used. I will concentrate on the original analysis of Whitehorn and Betz (1960). They presented their results in two forms: as career patterns, and as individual items. In career patterns the A therapists (effective with schizophrenics) tended to be like lawyers and C.P.A's, while the B's tended to be like printers and mathematics and physical science teachers. Using item analysis they found that 23 items differentiated the A's from the B's. It is this 23-item scale and modifications of it that have been used most often in studies of the effectiveness of therapy or quasi-therapy.

Of the 23 items, 13 represent manual, mechanical, and engineering interests. The A's say they dislike these activities. Psychometric efforts to make the scale unidimensional result in these 13 items being among the survivors, indicating that whatever it is that these items represent tends to dominate the total scale. The other 10 items don't seem to have much in common and they usually do not correlate well with the total scale.

Razin (1971) questions why the scale should be made unidimensional. I agree, and indeed it can be argued that making it unidimensional may destroy its value. If we assume that the successful treatment of the schizophrenias involves a rare combination of traits, we would expect that within the 23 items there would be several dimensions, and that these dimensions might well be uncorrelated in a random sample of people, or even perhaps negatively correlated.

The A-B Scale may be not one test but two or more. It may function like a battery of tests in employee screening which are designed to, say, select machine operators who have high finger dexterity and high grasping strength, two characteristics which are probably negatively correlated in a random sample of individuals. The combination of traits required to treat schizophrenics may be very rare indeed.

Whitehorn and Betz did their analysis item by item, each entered individually. It was not a multivariate analysis. The fact that there are 13 items representing the rejection of manual, mechanical, and engineering interests may reflect more the general content of the Strong Vocational Interest Blank than it does the needs of schizophrenics. The other 10 items may be just as important. Further, the items together may not be exhaustive of the needed traits.

In presenting the possible meanings of the A-B Scale below, I will present one at a time, not because I believe there is a single correlate, but because it is difficult to think about combinations of scales when we are not even sure that any one of them is relevant. What is needed, of course, is a study of the correlates of the subscales of the A-B Scale.

Possible Meanings of the A-B Subscales

Ideas about the meanings of the A-B Subscales may be derived from several sources. There is the A-B literature. There is other literature of personality which may be relevant. Finally, if we simply consider what the schizophrenias are like, we might anticipate that certain traits are relevant in treatment.

The emphasis here is on the schizophrenias, not on the neuroses. Whitehorn and Betz (1954, 1960) were concerned with characterizing the successful treatment of the schizophrenias. It was later found (McNair, Callahan, and Lorr, 1962) that B's were more effective with outpatient neurotics.[1]

In thinking about the schizophrenias and what it is that schizophrenics need from their therapists, one is immediately confronted with conflicting hypotheses (see Razin, 1971, pp. 13 and 18). In its simplest form, the question becomes whether the therapist should be like the patient in order to understand him, or whether the therapist should be unlike the patient in order to help him out of whatever it is he is in. Therefore, with respect to most personality variables it could be argued that A therapists should be similar to schizophrenics, or that they should be the opposite, com-

[1]More accurately, more effective with Veterans Administration outpatients, a finding that is frequently interpreted that B's are more effective with neurotics.

plementary. If the A-B Scale is multivariate, both of these may be the case, i.e., the therapist may be like a schizophrenic in some respects and unlike him in others.

In presenting possible meanings of the A-B Scale, I am not so much concerned with the direction of the relationship (positive or negative, like or unlike) as I am with the possible relevance of the dimension. The first task is to uncover relevant dimensions, and secondly to discover how these dimensions relate to the subscales of the A-B Scale.

The suggestions below are in no particular order; no effort is made here to judge which of them (or which combination) is likely to be found valid in future research. Some of the ideas presented may seem to the reader to be rather farfetched; how could such a variable relate to psychotherapy with schizophrenics? However, since communication of personal values is very subtle, our present lack of knowledge requires us to keep an open mind.

Femininity. Dublin, Elton, and Berzins (1969) found that among volunteer freshmen, A's are more feminine than B's as measured by the Omnibus Personality Inventory. This could be of interest because of the general clinical consensus about homosexuality among schizophrenics. The difficulty with the Dublin et al. finding is that the O.P.I., like most inventories, includes interests among their measures of masculinity-femininity. Of 56 items, 13 concern preferences for science or the humanities. Conceivably, the rejection of science could be akin to the rejection of mechanics in the SVIB. It would be interesting to know whether the A-B Scale correlates with a femininity score derived from the 43 items which are not concerned with science or the humanities.

Kemp (1963) found that 8 of 300 items in the MMPI correlated with the A-B Scale. There is a ninth item (building contractor) in both tests. Four of the 9 are also among the 60 MMPI items which measure femininity. Of these four, three (building contractor, mechanics magazines, and forest ranger) represent content overlap, or possible overlap with the SVIB. This leaves only one item of femininity picked up. This one item (bothered about not being better looking) along with building contractor and mechanics magazines, are among 31 which Manosevitz (1970) found to discriminate homosexuals. Taken together, however, these MMPI studies suggest that there are many items relating to femininity and homosexuality which are not correlated with the A-B Scale. Additionally, of nine MMPI items which appear to correlate with the A-B Scale, five lie outside the domains of femininity and homosexuality.

In the A-B Scale itself, the A therapist says he prefers to be president to being a committee chairman, and that he follows up subordinates effectively. These items have a masculine tone. Thus although it is possible that the A therapist is more feminine than the B, the evidence available is not yet persuasive.

Less Social Competence. Schizophrenics generally have less social competence than neurotics. McGuigan and Seidman (1971) found that of 65 students, the 12 nearest the "A" pole were less socially competent than the 12 nearest the "B" pole. For the group as a whole the correlation was .19 ($p < .20$). The tendency is therefore for the A's to resemble schizophrenics more than they do the neurotics, but the correlations are not strong enough to be persuasive.

Rejection of Manual Occupations. Since A therapists tend to reject the manual occupations, one wonders if this might also be true for schizophrenics. Klugman (1960), using the Kuder Preference Record—Vocational, found that schizophrenics as compared with normals rejected mechanical pursuits, and showed tendencies to prefer literary and clerical activities. On the other hand, Steinberg (1952) reports similar findings comparing neurotics with normals. It is not clear how schizophrenics would compare with neurotics on these interests. It is surprising how few studies there are of vocational interests among persons with mental disorders.

Rejection of the Work Ethic. Mirels and Garrett (1971) have devised a Protestant Ethic Scale. Most of the items are concerned with acceptance of the work ethic and rejection of leisure. The remainder extol sacrifice and suffering in contrast to pleasure seeking. They find that the SVIB scale for math-science teacher (B therapist) is positively related to this scale. The SVIB scales for lawyer and for author-journalist (A therapist) are negatively

related to the Protestant Ethic Scale. Thus there is a possiblity that A therapists reject the Protestant Ethic. Whether this might be a rejection of work, or a rejection of moralism or both, is certainly an issue worth pursuing. Very few therapists would argue that one ought to be moralistic with schizophrenics, but probably even fewer would argue for moralism in the treatment of neurotics.

Rejection of Dogmatism and Authoritarianism. The Protestant Ethic is positively correlated with Authoritarianism as measured by the F Scale (Mirels and Garrett, 1971), which in turn is highly correlated with Dogmatism (Kerlinger and Rokeach, 1966). Betz (1962) sees the B doctor as a rigid, authoritative instructor who sees things as right or wrong.

Tolerance of Schizophrenic Symptomatology. Authoritarianism has been found repeatedly to be associated with negative attitudes toward mental disorders. The prototype of mental disorder is psychosis, not neurosis. If the A therapist is less authoritarian, he might be more tolerant of schizophrenic symptomatology. Whitehorn and Betz (1954) found that he was less concerned with reducing symptoms and more concerned with helping the schizophrenic to resolve conflicts. He was more likely to confide in the patient and to participate actively. Segal (1971) illustrates how the A therapist becomes more personally involved with his clients. All of these findings suggest that the A therapist may be less concerned with status and that there may be less social distance between him and his patients. Whether this would mean greater freedom for the patient is problematical. We have been considering here authoritarianism as an ideology, not as an interpersonal stance; as suggested next below, the two may not be the same.

Acceptance or Rejection of Authority. How ideologies work out in actual patterns of interpersonal relations may be quite complex. Betz (1962) makes much of the schizophrenics' problems with authority. It would be easy to assume that democratic A's avoid these problems. But among the 23 items is one about drilling in a military company. It is the A's who show less dislike for this item. On the one hand Betz talks about the A's respect for self-determination rather than for obedience and conformity. On the other she presents the schizophrenics' need for firmness and limit-setting. Possibly the dilemma can be resolved by the now classic differentiation of democracy, autocracy, and laissez faire, where the B's are seen as alternating between autocracy and laissez faire. If so, does this latter behavior help a neurotic?

Field Independence. A therapists have been found to be more field dependent than B therapists on the rod-and-frame test (but not on embedded figures). Field dependent persons are thought to be less cold and distant; less involved in cognitive, intellectual, and philosophical pursuits; less individualistic; and more attentive to subtle social cues. Since these latter characteristics have greater relevance to psychotherapy than the rod-and-frame test, it might be preferable to try to measure them directly.

Significance of the Issues

Studies of in-therapy behavior seem to indicate that successful therapy requires that a therapist have accurate empathy and unconditional regard for his patient (Rogers, Gendlin, Kiesler, and Truax, 1967). But how is this to be accomplished? Are these characteristics of particular therapists or does the A-B Scale sort out which therapists are capable of having these kinds of relationships with which patients?

Still another line of reasoning is that the A-B Scale sorts out different therapies—e.g., emotional involvement with the schizophrenic and intellectual involvement with the neurotic. Much of what Betz (1966) writes suggests that a trusting confidential relationship is particularly important for schizophrenics.

Studies of in-therapy behavior tend to be very expensive relative to correlational and analogue studies of the A-B Scale. The latter may give us hints as to what to look for in therapy. Moreover, while the in-therapy studies tend to concentrate on specific behaviors and dyadic relations, studies of the personalities of therapists may explain the differential *meaning* of these behaviors and relationships.

The same overt behavior may have very different meaning in different therapeutic settings. Consider for example, the very different meanings of touching for like-sex dyads as compared with opposite-sex dyads. The overt behaviors have different meanings. Similarly a common meaning may express itself in differential behavior. The specific behaviors which are consonant with a particular kind of therapeutic relationship may be quite different in individual therapy, group therapy, and milieu therapy. Understanding personality attributes may help us to generalize relationships across various treatment modalities.

The A-B Scale was validated on a sample of therapists, nearly all of whom were male. Of the various items, hardly any could possibly have the same meaning for a woman that it has for a man. ("I would like to be a carpenter." "I prefer having many women friends to only a few.") Indeed, the A-B Scale has very different correlates for females than for males (Dublin, Elton, and Berzins, 1969). If we could assume that the phenotypic behaviors we observe in therapy have the same meaning when performed by male and by female therapists, it might not be so important to discover what personality dimensions underlie the A-B Scale. Until we understand these dimensions, the A-B Scale offers no guidance for the many women who are psychotherapists.

Actually, as things stand now, the A-B Scale offers no real guidance for male therapists. It could be used as a selection device for male therapists (which it apparently has not), but it really doesn't help us understand. If we understood the personality correlates of this scale, we would have significant leads toward the effective treatment of the schizophrenias, and possibly also of the neuroses.

Appendix 3

Personal Tendencies Questionnaire

The first Personal Tendencies Questionnaire (PTQ), the one used in the pilot study (chapter III) is described on page 108. The revised questionnaire which was used in the Second and Third studies (chapters IV and V) is reproduced in full on the following pages. It is further described on pages 107-109, and in tables 6, 10-13, and 17. In appendix 4, the personality scales of the PTQ are presented separately. The A-B predictors and clusters in the PTQ are presented on pages 36-45. The questionnaire contains many items from the Strong Vocational Interest Blank (Form M) with the permission of the publisher, but this permission does not extend to further reproduction. At the same time, the questionnaire does not include many other SVIB items presented in tables 25, 26, 27, 28, and 63. Investigators who are planning this kind of research might well consider the following:

Administering the entire 400-item SVIB.

Dropping the SVIB items from the PTQ and adding items on treatment ideology (appendix 8) and adding to certain scales such as Empathic Interest and Tolerance for Ambivalence.

Fortran programs for scoring the PTQ may be secured from the author.

A second revision of the PTQ is described in appendix 8.

Personal Tendencies Questionnaire

It will help us most if you will record your initial reaction by checking or circling the "T," the "?" or the "F."

When I am a part of a team or group that is working or playing together, I prefer not to get so involved and caught up in the activity that I lose my feeling of separateness.	T	?	F	1
I can accept just criticism without getting sore.	T	?	F	2
The leader of a group is likely to be most effective if he acts on the assumption that everyone in the group is glad to have him as a leader.	T	?	F	3
I prefer that my hours of eating and sleeping be regular, not changing from day to day.	T	?	F	4
What youth needs most is strict discipline, rugged determination, and the will to work and fight for family and country.	T	?	F	5
What I have hoped for in life generally is coming to me.	T	?	F	6
It's a good thing for a teacher to leave basic problems unresolved, so that students have a figure out for themselves whether there is a clear answer.	T	?	F	7
When I choose to do something, the fact that it may not be allowed is relatively unimportant.	T	?	F	8
Human nature being what it is, there will always be war or other forms of serious social conflict.	T	?	F	9
Knowing that something will be very hard to understand makes it more interesting to me.	T	?	F	10
I have often thought at some length the various ways in which I would be affected if my nearest relatives were suddenly to die.	T	?	F	11
I enjoy putting my own affairs aside to do someone a favor.	T	?	F	12
I feel very insecure about reaching any decision of importance entirely on my own.	T	?	F	13
I am inclined to keep quiet when out in a social group.	T	?	F	14
Some of my friends think that my ideas are impractical, if not a bit wild.	T	?	F	15
My accomplishments in life are about as high as my expectations.	T	?	F	16

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People fall very naturally into distinct classes, such as the strong and the weak.	T	?	F	17
I would prefer being president of a society to being a committee chairman or a member.	T	?	F	18
I believe you should ignore other people's faults and make an effort to get along with almost everybody.	T	?	F	19
The man who can approach an unpleasant task with enthusiasm is the man who gets ahead.	T	?	F	20
While listening to a friend recount an experience, I very seldom emphathize to the point of feeling what he must have felt in the situation he is describing.	T	?	F	21
I have mechanical ingenuity (inventiveness).	T	?	F	22
Insofar as the study of philosophy makes one doubt his basic beliefs, it should be encouraged.	T	?	F	23
If one works hard enough, he is likely to make a good life for himself.	T	?	F	24
I enjoy letting my thoughts wander aimlessly, and find myself thinking about all sorts of unusual and unrelated things.	T	?	F	25
I think that my future will fulfill my aspirations.	T	?	F	26
Those religions are to be most respected which impose no uniform beliefs on their members.	T	?	F	27
The real fault is to have faults and not try to amend them.	T	?	F	28
Once a husband and wife have contemplated divorce, they can probably never be truly happy with one another again.	T	?	F	29
I would rather spend an hour solving several easy math problems than solving one hard one.	T	?	F	30
I like the sense of privately feeling my way into some sympathetic participation in every kind of human emotional experience I hear about, regardless of how tragic or unsavory some of them may be.	T	?	F	31
Even the strongest love for a person is entirely compatible with the presence of a variety of negative feelings toward the same person.	T	?	F	32
If people would talk less and work more, everybody would be better off.	T	?	F	33
When I go out in the evening, I like it best if all the activities are planned.	T	?	F	34
In trying to understand what another person is like, I find it best to put little emphasis on the feelings I get when I am with that person.	T	?	F	35
I am inclined to keep in the background on social occasions.	T	?	F	36
Most of our social problems would be solved if we could somehow get rid of the immoral, crooked, and feeble-minded people.	T	?	F	37

It is better to let the past be forgotten; to be remorseful is a waste of time.	T	?	F	38
The best theory is the one that has the best practical applications.	T	?	F	39
I prefer deciding what is morally right myself, rather than accepting the moral code of society or institutions.	T	?	F	40
In listening to a lecture, I often am amused by thoughts of double meanings or possible puns which the lecturer probably doesn't intend.	T	?	F	41
I prefer having many women friends rather than only a few women friends.	T	?	F	42
I am very sensitive to the emotional attitudes people sometimes want to convey but are unwilling to state openly.	T	?	F	43
I refrain from giving advice and help because I don't want people to be dependent on me.	T	?	F	44
I must admit that I would find it hard to have for a close friend a person whose manner or appearance made him somewhat repulsive, no matter how brilliant or kind he might be.	T	?	F	45
Our society would have fewer problems if people had less leisure time.	T	?	F	46
Arguments about irreconcilable differences—such as contradictory religious beliefs or basic values—are more interesting than arguments about points on which one person is able to persuade the others to agree with him.	T	?	F	47
I can correct others without giving offense.	T	?	F	48
It is not possible to know when one is doing good or evil.	T	?	F	49
I would rather open a heavy door myself to having it open automatically.	T	?	F	50
I prefer not to associate with the kind of people who sometimes get silly and childish.	T	?	F	51
A beautiful sunset would be still more beautiful if it lasted longer, and were not a tragic reminder of how transitory everything good is.	T	?	F	52
The thing I would particularly hate about military service is the requirement of obeying orders of my immediate superior.	T	?	F	53
It is very interesting to hear about, or to observe, an intensely emotional experience of someone I know.	T	?	F	54
When at a boring lecture, while I may get restless I seldom get the urge to set off a firecracker, jump up and down, scream "Fire" at the top of my lungs, etc.	T	?	F	55
Sometimes when I think about how much other people have, or how much they have accomplished, I feel ashamed.	T	?	F	56
At the end of a textbook chapter, a good summary is more valuable than a set of thought-provoking questions.	T	?	F	57

It would not be very interesting to try to feel one's way into what the experience of a blind person is like; it would be better not to think about it unless you had to.	T	?	F	58
Occasional sharp words are no threat to any genuine friendship.	T	?	F	59
I believe in individual religion rather than institutionalized religion.	T	?	F	60
There are times when I feel as if I were a small child again, or when I wish I could be one for a short time.	T	?	F	61
I am able to meet emergencies quickly and effectively.	T	?	F	62
When a person has a problem or worry, it is best for him to think about it rather than turn his attention to more cheerful things.	T	?	F	63
Fun-house mirrors that completely distort your body-shape provide an interesting experience.	T	?	F	64
I get annoyed when people I hardly know greet me as if they were old friends.	T	?	F	65
If given a chance, I would do something of great benefit to the world.	T	?	F	66
Obedience and respect for authority are the most important virtues children should learn.	T	?	F	67
I stimulate the ambition of my associates.	T	?	F	68
The unfinished and the imperfect often have greater appeal for me than the completed and polished.	T	?	F	69
If I had to choose between carrying out a program of a superior whom I respect and working for myself, I would choose the latter.	T	?	F	70
I rarely let my imagination wander to the point where I think things which are so unusual, sexual, violent, or irreverent that they could be discussed only with close friends—if anyone.	T	?	F	71
A person will get along better with his close relatives if he recognizes that he resents them as well as loves them.	T	?	F	72
I conform to conventions even when I don't like them.	T	?	F	73
The worst crime a person could commit is to attack publicly the people who believe the same thing he does.	T	?	F	74
I don't understand how men in some European countries can be so demonstrative to one another.	T	?	F	75

				1
I like to have many social engagements.	T	?	F	1
Sometimes I feel I learn almost as much from watching people's faces and their hands while they talk, as I do from listening to what they say.	T	?	F	2
I am always on time with my work.	T	?	F	3

I would rather have a few intense friendships than a great many friendly but casual relationships.	T	?	F	4
I prefer to take an elevator rather than to climb a flight of stairs.	T	?	F	5
When I am alone or performing a task requiring no mental work, I enjoy doing things like rhyming words, discovering puns, and making up little songs.	T	?	F	6
Rather than develop or operate a new machine, I would prefer to interest the public in the machine through public addresses.	T	?	F	7
I am unable to work efficiently when I am in a subservient position.	T	?	F	8
Quite apart from considerations of morality or prudence, the confused sensations of extreme drunkenness would be a very objectionable experience to go through.	T	?	F	9
I seldom become enthusiastic over new ideas or experiences the way some people do; rather, I tend to take these things in stride.	T	?	F	10
Sometimes I ruminate about things I have done wrong.	T	?	F	11
No one can be sure of conquering his difficulties; willpower is not enough.	T	?	F	12
I find it easy to get along with people younger than myself.	T	?	F	13
Science should have as much to say about moral values as religion does.	T	?	F	14
I get a kick out of trying to solve a puzzle even when I fail.	T	?	F	15
I get little pleasure or fun out of playing with words and language—as by talking nonsense, baby-talk or in a foreign accent—and seldom do that sort of thing.	T	?	F	16
It would be hard to have complete respect for someone as leader of your group if you have any really fundamental disagreement with him.	T	?	F	17
An insult to our honor should always be punished.	T	?	F	18
The challenge of novelty and excitement in a completely new situation is worth the price of disrupting one's old established ways.	T	?	F	19
Kindness and generosity are the most important qualities for a wife to have.	T	?	F	20
I tend to regard little children as principally a nuisance.	T	?	F	21
Every person should have complete faith in some supernatural power whose decisions he obeys without question.	T	?	F	22
Clouds that are frankly clouds and cover the whole sky are preferable to the little floating ones that leave you never knowing whether the next moment will be bright or dull.	T	?	F	23

It would be difficult to maintain a warm friendship with a person who has some markedly disgusting characteristic.	T	?	F	24
I prefer a job that requires making difficult decisions rather than following instructions carefully.	T	?	F	25
When playing with very young children, I find it easy to get into their world and experience things as they do.	T	?	F	26
I follow up subordinates effectively.	T	?	F	27
Unquestioning loyalty is the first requirement of good citizenship.	T	?	F	28
A slow-acting anesthetic, which would provide a period of relaxed, hazy, mixed-up sensations would be preferable to an anesthetic which would up you under instantaneously.	T	?	F	29
A person should not probe too deeply into his own and other people's feelings, but take things as they are.	T	?	F	30
I like having a few intimate friends rather than many acquaintances.	T	?	F	31
Wild and impractical ideas are often the ones that are most worth pursuing.	T	?	F	32
I feel that since you only live once, you should enjoy yourself.	T	?	F	33
The happy person tends always to be poised, courteous, outgoing and emotionally controlled.	T	?	F	34
I prefer reading a book to going to a movie.	T	?	F	35
I can detect in myself no strong antisocial impulses of the sort which, under certain circumstances, might lead to crime.	T	?	F	36
The expert ski jumper should enjoy the sport all the more if it remains a source of tension and even alarm.	T	?	F	37
I resent anybody whose position is superior to mine and who can exert a certain authority over me.	T	?	F	38
A distaste for hard work usually reflects a weakness of character.	T	?	F	39
I rather like floating in water, for the pleasant sense it gives you of your own identity as against the formless mass of surrounding water.	T	?	F	40
It would be exciting to arrive in a city for the first time and find it enshrouded in a heavy fog.	T	?	F	41
The man who truly loves a woman must regard her as the best in the world in every important respect.	T	?	F	42
People should have more leisure time to spend in relaxation.	T	?	F	43
If young people get rebellious ideas, then as they grow up they ought to get over them and settle down.	T	?	F	44
The custom in some places of celebrating a funeral with a drunken feast is disgusting to anyone who respects the dignity of human sorrow.	T	?	F	45

While watching a play or listening to music I am often completely carried away, becoming totally absorbed and feeling as if I were a part of the play or the music.	T	?	F	46
The present is all too full of unhappiness. It is only the future that counts.	T	?	F	47
It wouldn't make me very unhappy if I were prevented from making numerous social contacts.	T	?	F	48
To be wandering around a familiar city and suddenly realize that you are lost, would be an unpleasant experience.	T	?	F	49
I prefer team games to games in which one individual competes against another.	T	?	F	50
I do not like to mix socially with people.	T	?	F	51
The more you get to know and like a person, the more you are aware of his weaknesses and failings.	T	?	F	52
Nobody ever learned anything really important except through suffering.	T	?	F	53
In watching football, a close game in which your side finally loses is more enjoyable than a game in which your side is way ahead almost from the start.	T	?	F	54
I would rather cut down weeds with a scythe than use a mowing machine.	T	?	F	55
My enjoyment of music and art takes the form of quiet pleasure, and I seldom have the intense emotional reactions to them that some people do.	T	?	F	56
It is only natural that a person should have a much better acquaintance with ideas he believes in than with ideas he opposes.	T	?	F	57
I tend to set very high standards for my own performance.	T	?	F	58
If there were a harmless drug which would temporarily make one's sense of smell as sensitive as that of a dog, it would be great fun to try taking some.	T	?	F	59
I could cut my moorings—quit my home, my family, and my friends—without suffering great regrets.	T	?	F	60
I do not tend to develop attachments to inanimate things or objects (such as autos, houses, tools, etc.) to the point where it almost seems as if they had a personality or were alive.	T	?	F	61
We may confidently expect that mankind will someday attain a stable social order in which marital infidelity will be unknown.	T	?	F	62
I get annoyed when a stranger talks to me on the bus, train, or airplane.	T	?	F	63
Optical illusions and other experiences that put you in conflict about what is real and what isn't are on the whole quite enjoyable.	T	?	F	64

Even if you were an expert in all the relevant languages, it would be disquieting to be in a multilingual group where you would never know what language to use next.	T	?	F	65
I sometimes have daydreams in which I become a "heroic" type of figure; either all-powerful, all-knowing, and successful or someone who has sunk to the lowest depths of depravity, weakness, and suffering.	T	?	F	66
When it comes to a difference of opinion in religion, we must be careful not to compromise with those who believe differently from the way we do.	T	?	F	67
Hard work offers little guarantee of success.	T	?	F	68
Regardless of what caused it, dizziness would just in itself be a very disturbing experience.	T	?	F	69
What this country needs most, more than laws and political programs, is a few courageous, tireless, devoted leaders in whom the people can put their faith.	T	?	F	70
Playing with words, as in punning, ought to be avoided, since it interferes with the normal use of words for communicating ideas clearly.	T	?	F	71
I am a talkative individual.	T	?	F	72
No thoughts are basically evil.	T	?	F	73
It is easy for me to take orders and do what I am told.	T	?	F	74
Life would be more meaningful if we had more leisure time.	T	?	F	75

				2
There are times when I get a notion of making a mess of things and being destructive, such as having the urge to throw mud on a freshly painted wall.	T	?	F	1
Perfect balance is the essence of all good composition.	T	?	F	2
No sane, normal, decent person could ever think of hurting a close friend or relative.	T	?	F	3
I would especially like to be a psychotherapist.	T	?	F	4
I enjoy mimicking or caricaturing people and their mannerisms, or enjoy watching others do it if I am not good at it myself.	T	?	F	5
I am inclined to be shy in the presence of the opposite sex.	T	?	F	6
Regardless of whether it is necessary or not, it is better to have a clear schedule or plan for each day's activities.	T	?	F	7
I would feel like a fool if, like some persons, I put a lot of energy into entertaining people I hardly know.	T	?	F	8
Sometimes I have a vague feeling of anxiety as if I had done wrong and would be found out.	T	?	F	9
Good pay, with small opportunities to learn over the next five years, is preferable to small pay, with large opportunities to learn over the next five years.	T	?	F	10

The type of humor which is based on the fantastic, bizarre, or impossible has little appeal for me.	T	?	F	11
I would rather do house-to-house canvassing than gardening.	T	?	F	12
I would have resented it if my parents tried to make me conform to a certain pattern of behavior.	T	?	F	13
Life is most enjoyable when it is filled with uncertainty about what is coming next.	T	?	F	14
I sometimes imagine what it would be like to do the impossible such as being a member of the opposite sex, living in another era, flying, etc.	T	?	F	15
The world has treated me at least as well as it has treated most others I know.	T	?	F	16
A man who does not believe in some great cause has not really lived.	T	?	F	17
I feel remorse when I think of some of the things I have done.	T	?	F	18
I would rather do work involving many details than work involving few details.	T	?	F	19
Of all the different philosophies which exist in this world, there is probably only one which is correct.	T	?	F	20
I am not prone to think things that make me laugh or chuckle to myself.	T	?	F	21
I become resistant when others attempt to influence me.	T	?	F	22
I prefer conceited people to jealous people.	T	?	F	23
I am able to smooth out tangles and disagreements between people.	T	?	F	24
I remember rather accurately a good many fairy stories and nursery tales.	T	?	F	25
I prefer playing safe to taking a chance.	T	?	F	26
It's only when a person devotes himself to an ideal or cause that life becomes meaningful.	T	?	F	27
Rather than nights spent at home, I like nights away from home.	T	?	F	28

Occupations: Indicate whether you would like that kind of work. Disregard salary, social standing, and future advancement. Consider only whether you would like to do what is involved in the occupation.

Draw a circle or check: L if you would like that kind of work.
I if you are indifferent to that kind of work.
D if you would dislike that kind of work.

Work rapidly. Your first impressions are desirable.

Auctioneer	L	I	D	29
Author of a novel	L	I	D	30
Building Contractor	L	I	D	31
Carpenter	L	I	D	32

	Cashier in a bank	L	I	D	33
	Electrical Engineer	L	I	D	34
	Employment Manager	L	I	D	35
	Foreign Correspondent	L	I	D	36
	Floorwalker	L	I	D	37
	Interpreter	L	I	D	38
	Jeweler	L	I	D	39
	Labor Arbitrator	L	I	D	40
	Machinist	L	I	D	41
	Marine Engineer	L	I	D	42
	Mechanical Engineer	L	I	D	43
	Office Clerk	L	I	D	44
	Photoengraver	L	I	D	45
	Poet	L	I	D	46
	Private Secretary	L	I	D	47
	Retailer	L	I	D	48
	Ship Officer	L	I	D	49
	Specialty Salesman	L	I	D	50
	Surgeon	L	I	D	51
	Toolmaker	L	I	D	52
	Wholesaler	L	I	D	53
School Subjects:	Agriculture	L	I	D	54
	Algebra	L	I	D	55
	Bookkeeping	L	I	D	56
	Geometry	L	I	D	57
	Literature	L	I	D	58
	Manual Training	L	I	D	59
	Mechanical Drawing	L	I	D	60
Amusements:	Solving mechanical puzzles	L	I	D	61
	Performing sleight-of-hand tricks	L	I	D	62
	Drilling in a military company	L	I	D	63
	Conventions	L	I	D	64
	Musical Comedy	L	I	D	65
	Detective stories	L	I	D	66
	Social Problem Movies	L	I	D	67
	Making a radio set	L	I	D	68
Activities:	Repairing a clock	L	I	D	69
	Adjusting a carburetor	L	I	D	70
	Repairing electrical wiring	L	I	D	71
	Cabinetmaking	L	I	D	72
	Being called a nickname	L	I	D	73
	Looking at shop windows	L	I	D	74
	Expressing judgments publicly regardless of criticism	L	I	D	75
					3
	Looking at a collection of antique furniture	L	I	D	1
Peculiarities of people:	Absentminded people	L	I	D	2
	People who have made fortunes in business	L	I	D	3
	Foreigners	L	I	D	4
	People who talk very slowly	L	I	D	5

People who chew gum L I D 6
Athletic men L I D 7

If you would like to know your scores on this inventory check here [1] 8

About your parents when you were 10 to 15 years of age:
(Please be as specific as possible.)

Your father's occupation: _____ 9-10

_____

Your mother's occupation: _____ 11-12

_____

Father's Education	(Check appropriate boxes)	*Mother's Education*	
[1]	No formal education	[1]	
[2]	Primary school attendance	[2]	
[3]	Secondary school attendance	[3]	13
[4]	Secondary school diploma	[4]	14
[5]	College or university attendance	[5]	
[6]	College or university degree	[6]	15
[7]	Specialized education. Please specify what kind:	[7]	

_____ _____

When you were growing up, did you ever know a person who had a serious mental disorder? [Yes] [No]

(If yes) How well you you know this person?

[Casual acqaintance] [Friend, relative] [Close friend, relative] 16

Did you have occasion to see this person at times when he was suffering from his disorder?

[No] [Yes, occasionally] [Yes, often] 17

About your college education (undergraduate):

Number of college years, or parts of years completed _____ 18
Major field of study _____ 19
Minor field of study _____ 20
Your vocational objective in college _____ 21

Your age in years at last birthday _____ Sex: [Male] [Female] 22-23

Appendix 4

Personality Scales in the PTQ

Tables 31 to 50 present the items in each of 20 personality scales contained in the PTQ. The internal consistency of these scales is shown in table 6.

The A-B predictors and clusters in the PTQ are shown in tables 10 to 13, and table 17. The A-B predictors are not internally consistent, as discussed on pages 18-19. The internal consistency of the A-B clusters is presented on page 109.

Table 31. The Need for Closure

The five items are from Irvin L. Child (1965), "Tolerance of Complexity." Of his 20 items, 16 are included in the questionnaire. Of these, 5 are from the "F Scale" (see "Antidemocratic", table 41) and are scored there. Six other items were found not to correlate well with the total scale and were dropped.

	Item	r with Total Score
1-7	It's a good thing for a teacher to leave basic problems unresolved, so that students have to figure out for themselves whether there is a clear answer. (True)	—.66
1-23	Insofar as the study of philosophy makes one doubt his basic beliefs, it should be encouraged. (True)	—.60
2-32	Wild and impractical ideas are often the ones that are most worth pursuing. (True)	—.56
1-27	Those religions are to be most respected which impose no uniform beliefs on their members. (True)	—.52
1-47	Arguments about irreconcilable differences—such as contradictory religious beliefs or basic values—are more interesting than arguments about points on which one person is able to persuade the others to agree with him. (True)	—.52

This scale has much the same meaning as Child's Tolerance of Complexity. But the content is somewhat more intellectual. Accordingly, it was retitled the Need for Closure (with signs of the items reversed). The items excluded are as follows: 1-3 The leader of a group is likely to be most effective if he acts on the assumption that everyone in the group is glad to have him as a leader. 1-57 At the end of a textbook chapter, a good summary is more valuable than a set of thought-provoking questions. 2-28 Unquestioning loyalty is the first requirement of good citizenship. 2-42 The man who truly loves a woman must regard her as the best in the world in every important respect. 2-52 The more you get to know and like a person, the more you are aware of his weaknesses and failings. 2-62 We may confidently expect that mankind will someday attain a stable social order in which marital infidelity will be unknown.

Table 32. Regression in the Service of the Ego

This unpublished scale was developed by David Singer. Some of its characteristics in a college population are presented by Child (1965). Of 30 items, 27 were included in the PTQ. Of these, 3 were found not to correlate with the total score even when they were part of the score, and these 3 were dropped. Two other items were removed because they were badly needed in the Empathic Interest Scale (see the next table).

	Item	r with Total Score
2-66	I sometimes have daydreams in which I become a "heroic" type of figure; either all-powerful, all-knowing and successful or someone who has sunk to the lowest depths of depravity, weakness and suffering. (True)	.58
1-25	I enjoy letting my thoughts wander aimlessly, and find myself thinking about all sorts of unusual and unrelated things. (True)	.53
3-1	There are times when I get a notion of making a mess of things and being destructive, such as having the urge to throw mud on a freshly painted wall. (True)	.52
1-61	There are times when I feel as if I were a small child again, or when I wish I could be one for a short time. (True)	.51
3-11	The type of humor which is based on the fantastic, bizarre, or impossible has little appeal for me. (False)	—.50
3-15	I sometimes imagine what it would be like to do the impossible such as being a member of the opposite sex, living in another era, flying, etc. (True)	.49
2-6	When I am alone or performing a task requiring no mental work, I enjoy doing things like rhyming words, discovering puns, and making up little songs. (True)	.48
1-71	I rarely let my imagination wander to the point where I think things which are so unusual, sexual, violent, or irreverent that they would be discussed only with close friends—if anyone. (False)	—.47
2-36	I can detect in myself no strong antisocial impulses of the sort which, under certain circumstances, might lead to crime. (False)	—.44
2-56	My enjoyment of music and art takes the form of quiet pleasure, and I seldom have the intense emotional reactions to them that some people do. (False)	—.44

Continued on the next page.

Table 32 (concluded)

	Item	r with Total Score
1-41	In listening to a lecture, I often am amused by thoughts of double meanings or possible puns which the lecturer probably doesn't intend. (True)	.40
3-5	I enjoy mimicking or caricaturing people and their mannerisms, or enjoy watching others do it if I am not good at it myself. (True)	.40
2-16	I get little pleasure or fun out of playing with words and language—as by talking nonsense, baby-talk or in a foreign accent—and seldom do that sort of thing. (False)	—.38
2-46	While watching a play or listening to music I am often completely carried away, becoming totally absorbed and feeling as if I were a part of the play or the music. (True)	.38
3-21	I am not prone to think things that make me laugh or chuckle to myself. (False)	—.38
1-51	I prefer not to associate with the kind of people who sometimes get silly or childish. (False)	—.34
2-61	I do not tend to develop attachments to inanimate things or objects (such as autos, houses, tools, etc.) to the point where it almost seems as if they had a personality or were alive. (False)	—.33
1-55	When at a boring lecture, while I may get restless I seldom get the urge to set off a firecracker, jump up and down, scream "Fire" at the top of my lungs, etc. (False)	—.31
1-11	I have often thought at some length the various ways I would be affected if my nearest relatives were suddenly to die. (True)	.31
2-10	I seldom become enthusiastic over new ideas or experiences the way some people do; rather I tend to take these things in stride. (False)	—.30
3-25	I remember rather accurately a good many fairy stories and nursery tales. (True)	.26
3-40	I rather like floating in water, for the pleasant sense it gives you of your own identity as against the formless mass of surrounding water. (True)	.20

Items dropped were 1-21 and 1-35 (see bottom of table 33) and 1-1 When I am part of a team or group that is working or playing together I prefer not to get so involved and caught up in the activity that I lose my feeling of separateness.

Table 33. Empathic Interest

The empathic interest items are from a variety of sources. Four of the original nine items are from Regression in the Service of the Ego (table 32). Of these, two were found to have low correlations with Empathic Interest (and also with Regression) and these two were dropped (see below). Two other items marked with an asterisk(*) correlate with both scales but are included in Empathic Interest because it is a weaker scale, psychometrically, than Regression.

	Item	r with Total Score
1-31*	I like the sense of privately feeling my way into some sympathetic participation in every kind of human emotional experience I hear about, regardless of how tragic or unsavory some of them may be. (True)	.60
1-43	I am very sensitive to the emotional attitudes people sometimes want to convey but are unwilling to state openly. (True)	.49
2-2	Sometimes I feel I learn almost as much from watching people's faces and their hands while they talk, as I do from listening to what they say. (True)	.41
1-54	It is very interesting to hear about, or to observe, an intensely emotional experience of someone I know. (True)	.37
1-58	It would not be very interesting to try to feel one's way into what the experience of a blind person is like; it would be better not to think about it unless you had to. (False)	—.37
2-30	A person should not probe too deeply into his own and other people's feelings, but take things as they are. (False)	—.37
2-26*	When playing with very young children, I find it easy to get into their world and experience things as they do. (True)	.36

The items excluded are as follows: 1-21 While listening to a friend recount an experience, I very seldom emphathize to the point of feeling what he must have felt in the situation he is describing. 1-35 In trying to understand what another person is like, I find it best to put little emphasis on the feelings I get when I am with that person.

Table 34. The Work Ethic

Mirels and Garrett (1971) developed 19 items measuring the Protestant Ethic. Some of the items concern "spendthrifts" and are not included here although this aspect of the Protestant Ethic would be of considerable interest (see page 162). Seven items relating to work and leisure were included in the PTQ. Of these, two were dropped because of low correlations with the scale.

	Item	r with Total Score
2-43	People should have more leisure time to spend in relaxation. (False)	—.63
2-75	Life would be more meaningful if we had more leisure time. (False)	—.60
1-46	Our society would have fewer problems if people had less leisure time. (True)	.59
1-20	The man who can approach an unpleasant task with enthusiasm is the man who gets ahead. (True)	.53
1-24	If one works hard enough, he is likely to make a good life for himself. (True)	.52

The items excluded are as follows: 2-39 A distaste for hard work usually reflects a weakness of character, and 2-68 Hard work offers little guarantee of success.

Table 35. The Need for Order

Of the five items, two are new and three are from Child's Tolerance for Ambiguity. (1965)

	Item	r with Total Score
1-4	I prefer that my hours of eating and sleeping be regular, not changing from day to day. (True)	.65
2-19*	The challenge of novelty and excitement in a completely new situation is worth the price of disrupting one's old established ways. (False)	—.57
1-34	When I go out in the evening, I like it best if all the activities are planned. (True)	.53
3-7*	Regardless of whether it is necessary or not, it is better to have a clear schedule or plan for each day's activities. (True)	.48
3-14*	Life is most enjoyable when it is filled with uncertainty about what is coming next. (False)	—.48

* From Child's Tolerance for Ambiguity. Three other items from this scale were included in the PTQ, but the two triads are uncorrelated, and the second triad has no internal consistency for our sample of 133 mental health professionals. These latter items are: 2-23 Clouds that are frankly clouds and cover the whole sky are preferable to the little floating ones that leave you never knowing whether the next moment will be bright or dull, 2-41 It would be exciting to arrive in a city for the first time and find it enshrouded in a heavy fog, and 2-65 Even if you were an expert in all the relevant languages, it would be disquieting to be in a multilingual group where you would never know what language to use next.

Table 36. Tolerance of the Unrealistic Experience

Of Child's 12 items (1965), 9 were included in the PTQ. Of these 2 were dropped from this scale because of very low correlations with the scale.

	Item	r with Total Score
2-69	Regardless of what caused it, dizziness would just in itself be a very disturbing experience. (False)	—.61
2-9	Quite apart from considerations of morality or prudence, the confused sensations of extreme drunkenness would be a very objectionable experience to go through. (False)	—.59
2-64	Optical illusions and other experiences that put you in conflict about what is real and what isn't are on the whole quite enjoyable. (True)	.56
2-59	If there were a harmless drug which would temporarily make one's sense of smell as sensitive as that of a dog, it would be great fun to try taking some. (True)	.56
2-29	A slow-acting anesthetic, which would provide a period of relaxed, hazy, mixed-up sensations would be preferable to an anesthetic which would put you under instantaneously. (True)	.47
1-64	Fun-house mirrors that completely distort your body-shape provide an interesting experience. (True)	.46
2-49	To be wandering around a familiar city and suddenly realize that you are lost, would be an unpleasant experience. (False)	—.43

The items excluded are as follows: 1-58 It would not be very interesting to try to feel one's way into what the experience of a blind person is like; it would be better not to think about it unless you had to, and 2-71 Playing with words, as in punning, ought to be avoided, since it interferes with the normal use of words for communicating ideas clearly. This last item was found to correlate highly with the F Scale and is therefore included in the Antidemocratic scale, table 41.

Table 37. Tolerance for Ambivalence

Of Child's 10 items (1965), all were included. However, 3 of the 10 are found to have low correlations with the scale in our sample of 133 mental health professionals and they have been dropped from this scale.

	Item	r with Total Score
2-24	It would be difficult to maintain a warm friendship with a person who has some markedly disgusting characteristic. (False)	—.54
2-37	The expert ski jumper should enjoy the sport all the more if it remains a source of tension and even alarm. (True)	.51
2-17	It would be hard to have complete respect for someone as leader of your group if you have any really fundamental disagreement with him. (False)	—.50
1-29	Once a husband and wife have contemplated divorce, they can probably never be truly happy with one another again. (False)	—.49
1-32	Even the strongest love for a person is entirely compatible with the presence of a variety of negative feelings toward the same person. (True)	.41
2-54	In watching football, a close game in which your side finally loses is more enjoyable than a game in which your side is way ahead almost from the start. (True)	.38
1-72	A person will get along better with his close relatives if he recognizes that he resents them as well as loves them. (True)	.30

The items excluded are as follows: 1-52 A beautiful sunset would be still more beautiful if it lasted longer, and were not a tragic reminder of how transitory everything good is, and 2-45 The custom in some places of celebrating a funeral with a drunken feast is disgusting to anyone who respects the dignity of human sorrow. This last item was found to correlate highly with the F Scale and is therefore included in the Antidemocratic scale, table 41.

Table 38. Preference for Decision Making

Of 11 items, Child et al. (1969), 4 are included.

	Item	r with Total Score
1-60	I believe in individual religion rather than institutionalized religion. (True)	.61
1-40	I prefer deciding what is morally right myself, rather than accepting the moral code of society or institutions. (True)	.61
2-25	I prefer a job that requires making difficult decisions rather than following instructions carefully. (True)	.56
1-13	I feel very insecure about reaching any decision of importance entirely on my own. (False)	—.51

Table 39. Personal Standards

This item, written for the PTQ, was thought to be correlated with Remorse, table 40. It does not so correlate, so it stands alone in analysis.

	Item
2-58	I tend to set very high standards for my own performance.

Table 40. Remorse

For his "Superego" scale, Child (1965) developed 20 items. Of these, 9 were included in the PTQ. Of the 9, 2 were dropped because of low correlations with the scale for our sample of 133 mental health professionals. It is doubtful that the remaining 7 are representative of Child's Superego scale, and a new name was invented.

	Item	r with Total Score
3-18	I feel remorse when I think of some of the things I have done. (True)	.64
3-9	Sometimes I have a vague feeling of anxiety as if I had done wrong and would be found out. (True)	.56
1-38	It is better to let the past be forgotten; to be remorseful is a waste of time. (False)	—.50
2-11	Sometimes I ruminate about things I have done wrong. (True)	.44
1-8	When I choose to do something, the fact that it may not be allowed is relatively unimportant. (False)	—.42
1-49	It is not possible to know when one is doing good or evil. (False)	—.34
1-28	The real fault is to have faults and not try to amend them. (True)	.32

The items excluded are as follows: 2-33, I feel that since you only live once, you should enjoy yourself, and 2-73, No thoughts are basically evil.

Table 41. Antidemocratic Scale (not a manifest scale)

Most of the items in this scale are from the F Scale which was developed by Adorno, Frenkel-Brunswik, Levinson, and Sanford (1950) as an indirect measure of ethnocentrism. The F Scale has been found to be strongly correlated with attitudes toward the serious mental disorders, especially "custodialism" vs. "humanism." (Greenblatt et al. 1957, pp. 26, 206, 224, 363, and 374) There are a large number of variants of this scale which are not necessarily comparable. From the original 42-item scale, 14 items were included in the PTQ of which 5 were also in Tolerance of Complexity (table 31) and 4 were also in Independence of Judgement (table 42).

Mental health professionals score very low on this scale. On the 14 items, the average mental health professional responds in an antidemocratic way to only 2, even though these items are the less extreme ones of the original 42. This extreme skewness poses measurement problems. For this reason it seemed desirable to include as many items as possible. The overlapping items were all assigned to this scale rather than to the other two scales. Additionally it was found that 3 other items correlated highly with the 14 and were not well correlated with their scales. One of the 14 items was dropped because it did not correlate well with the others.

	Item	r with Total Score
2-45*	The custom in some places of celebrating a funeral with a drunken feast is disgusting to anyone who respects the dignity of human sorrow. (True)	.67
3-3	No sane, normal, decent person could ever think of hurting a close friend or relative. (True)	.59
1-33	If people would talk less and work more, everybody would be better off. (True)	.58
2-44	If young people get rebellious ideas, then as they grow up they ought to get over them and settle down. (True)	.56
2-71*	Playing with words, as in punning, ought to be avoided, since it interferes with the normal use of words for communicating ideas clearly. (True)	.54
1-37	Most of our social problems would be solved if we could somehow get rid of the immoral, crooked, and feeble-minded people. (True)	.53
1-74*	The worst crime a person could commit is to attack publicly the people who believe the same thing he does. (True)	.49

continued on next page

Table 41.(concluded)

	Item	r with Total Score
1-9	Human nature being what it is, there will always be war or other forms of serious social conflict. (True)	.43
1-67	Obedience and respect for authority are the most important virtues children should learn. (True)	.42
1-5	What youth needs most is strict discipline, rugged determination, and the will to work and fight for family and country. (True)	.41
2-70	What this country needs most, more than laws and political programs, is a few courageous, tireless, devoted leaders in whom the people can put their faith. (True)	.39
1-17	People fall very naturally into distinct classes, such as the strong and the weak. (True)	.39
2-18	An insult to our honor should always be punished. (True)	.32
2-22	Every person should have complete faith in some supernatural power whose decisions he obeys without question. (True)	.32
2-12	No one can be sure of conquering his difficulties; will-power is not enough. (False)	—.24
2-53	Nobody ever learned anything really important except through suffering. (True)	.23

Item 1-63, When a person has a problem or worry, it is best for him to think about it rather than turn his attention to more cheerful things, was dropped because it did not correlate well with the other items.

* Item 2-45 is from Tolerance of Ambivalence (table 37) 2-71 from Tolerance of the Unrealistic Experience (table 36) and 1-74 from Dogmatism (table 48).

Table 42. Individualism (not a manifest scale)

Barron (1953) developed a scale of Independence of Judgement by validating items against not "yielding" in a social pressure experiment (Asch, 1955). These items, then, have behavioral validity not necessarily manifest validity. In his item pool Barron included the items of the F Scale and a number of these items predicted "not yielding," all but one of them (1-9) being scored in a reverse direction from that in the F Scale, table 41.

Of Barron's 22 items, 19 were included in the PTQ. Of these, four are from the F Scale and are included in "Antidemocratic," table 41. Six other items did not correlate well in our sample and were dropped. Individualism is considerably more manifest in this scale than in Barron's.

	Item	r with Total Score
1-45	I must admit that I would find it hard to have for a close friend a person whose manner or appearance made him somewhat repulsive, no matter how brilliant or kind he might be. (False)	—.46
1-39	The best theory is the one that has the best practical applications. (False)	—.45
1-69	The unfinished and the imperfect often have greater appeal for me than the completed and polished. (True)	.43
3-2	Perfect balance is the essence of all good composition. (False)	—.42
1-15	Some of my friends think that my ideas are impractical, if not a bit wild. (True)	.41
1-19	I believe you should ignore other people's faults and make an effort to get along with almost everybody. (False)	—.41
2-20	Kindness and generosity are the most important qualities for a wife to have. (False)	—.39
2-30	A person should not probe too deeply into his own and other people's feelings, but take things as they are. (False)	—.39
2-50	I prefer team games to games in which one individual competes against another. (False)	—.39

The items that were excluded are as follows: 1-75, I don't understand how men in some European countries can be so demonstrative to one another, 2-4, I would rather have a few intense friendships than a great many friendly but casual relationships, 2-14, Science should have as much to say about moral values as religion does (See table 45), 2-34, The happy person tends always to be poised, courteous, outgoing, and emotionally controlled, 2-60, I could cut my moorings—quit my home, my family, and my friends—without suffering great regrets, 2-74, It is easy for me to take orders and do what I am told (see table 43).

Table 43. Deference Anxiety

Of nine items (Child et al. 1969), six were included in the PTQ. One item from Independence of Judgement was added because of its high correlation with the six items.

	Item	r with Total Score
2-74*	It is easy for me to take orders and do what I am told. (False)	—.65
1-53	The thing I would particularly hate about military service is the requirement of obeying orders of my immediate superior. (True)	.56
1-73	I conform to conventions even when I don't like them. (False)	—.50
3-13	I would have resented it if my parents tried to make me conform to a certain pattern of behavior. (True)	.49
3-22	I become resistant when others attempt to influence me. (True)	.49
2-38	I resent anybody whose position is superior to mine and who can exert a certain authority over me. (True)	.47
2-8	I am unable to work efficiently when I am in a subservient position. (True)	.42

* Item 2-74 is from Independence of Judgement (see table 42).

Table 44. Nurturance Anxiety

Of 10 items (Child et al. 1969), 6 were included, but only 3 were kept.

	Item	r with Total Score
1-65	I get annoyed when people I hardly know greet me as if they were old friends. (True)	.69
1-12	I enjoy putting my own affairs aside to do someone a favor. (False)	—.69
2-63	I get annoyed when a stranger talks to me on the bus, train or airplane. (True)	.54

The items that were excluded are as follows: 1-44, I refrain from giving advice and help because I don't want people to be dependent on me, 2-21, I tend to regard little children as principally a nuisance, and 3-8, I would feel like a fool if, like some persons, I put a lot of energy into entertaining people I hardly know.

Table 45. Science

This item is in the Independence of Judgement scale (see table 42). For our sample, it does not correlate well with the scale. On the other hand, in item analyses it frequently discriminates (e.g., Dent and Kwiatkowska, 1970). It was therefore continued in the analyses as a single item for exploratory purposes.

	Item
2-14	Science should have as much to say about moral values as religion does.

Table 46. Preference for Intellectual Challenge

Of 19 items (Child et al., 1969), the 3 items best correlated with the total score were included in the PTQ.

	Item	r with Total Score
2-15	I get a kick out of trying to solve a puzzle even when I fail. (True)	.75
1-30	I would rather spend an hour solving several easy math problems than solving one hard one. (False)	—.70
1-10	Knowing that something will be very hard to understand makes it more interesting to me. (True)	.68

Table 47. Extroversion

Child et al. (1969) developed 20 items which they called Affiliation or Sociability. Of these, 7 were included in the PTQ.

	Item	r with Total Score
1-36	I am inclined to keep in the background on social occasions. (False)	—.78
1-14	I am inclined to keep quiet when out in a social group. (False)	—.71
2-72	I am a talkative individual. (True)	.67
2-1	I like to have many social engagements. (True)	.65
2-51	I do not like to mix socially with people. (False)	—.54
3-6	I am inclined to be shy in the presence of the opposite sex. (False)	—.54
2-48	It wouldn't make me very unhappy if I were prevented from making numerous social contacts. (False)	—.49

Table 48. Fervor

Rokeach (1960) has developed several forms of a "Dogmatism" scale, and explored its relation to the F Scale (Kerlinger and Rokeach, 1966). Only eight items were included in the PTQ and one of these was more highly correlated with the F Scale than with Dogmatism. Therefore, it was transferred (see table 41). Three other items also did not correlate well and were dropped. The remaining four items all have a sense of commitment, or fervor.

	Item	r with Total Score
3-27	It's only when a person devotes himself to an ideal or cause that life becomes meaningful. (True)	.78
3-17	A man who does not believe in some great cause has not really lived. (True)	.74
1-66	If given a chance, I would do something of great benefit to the world. (True)	.59
2-57	It is only natural that a person should have a much better acquaintance with ideas he believes in than with ideas he opposes. (True)	.50

The items that were excluded are as follows: 2-67, When it comes to a difference of opinion in religion, we must be careful not to compromise with those who believe differently from the way we do, 2-47, The present is all too full of unhappiness. It is only the future that counts, and 3-20, Of all the different philosophies which exist in this world, there is probably only one which is correct.

Table 49. Life Satisfaction

These items were written for the PTQ.

	Item	r with Total Score
1-16	My accomplishments in life are about as high as my expectations. (True)	.73
1-6	What I have hoped for in life generally is coming to me. (True)	.72
1-26	I think that my future will fulfill my aspirations. (True)	.70
1-56	Sometimes when I think about how much other people have, or how much they have accomplished, I feel ashamed. (False)	—.59
3-16	The world has treated me at least as well as it has treated most others I know. (True)	.30

Table 50. Work Activity

Child et al. (1969) developed 12 items representing Preference for Work. Three of these work s[illegible] items were included in the PTQ to provide a contrast with the Work Ethic (table 34) in our efforts to understan[illegible] meaning of rejection of manual and mechanical activities among "A" therapists.

	Item	r with Total Score
2-5	I prefer to take an elevator rather than to climb a flight of stairs. (False)	—.78
2-55	I would rather cut down weeds with a scythe than use a mowing machine. (True)	.70
1-50	I would rather open a heavy door myself to having it open automatically. (True)	.68

Appendix 5

Supplemental Analyses of the Phipps Clinic Data

This appendix presents some analyses not essential to the content of chapter IV, but which provide some explanation for the methods that were used.

At the time the PTQ was constructed, I did not have data on which Phipps residents had prescribed drugs. I tried to approximate the no-drug group by selecting for item analyses the 47 therapists who completed their residencies before 1959. Tables 51-54 present the item analyses for these 47 therapists. These tables explain how SVIB items were accepted for inclusion in the PTQ.

It seemed appropriate to accept about 80 items into the PTQ. The .04 level of significance yielded about this number after allowance for other relevant considerations: (1) Nearly all the original 23 items were included regardless of whether they were significant in the new item analyses. (2) A few items were inserted to break up a long run of A-therapist dislikes. (3) Some items significant at .04 were excluded because they are dated, very skewed in their responses, or redundant.

There is one other consideration in the selection of SVIB items. In the original instrument there are some blocks of 10 which the respondent is asked to rank. In some cases an item can be extracted in a meaningful way without reproducing the entire 10 items. In general, such items are not included if it would require including the entire block of items.

One such item is among the original 23 of Whitehorn and Betz: Interest the public in a new machine through public addresses. When they reported their findings, they did not present all the detail concerning the 23 items and many investigators have taken the "A-B Scale" from the Whitehorn-Betz reports without looking at the original SVIB. Now, this item is one of 10, all concerned with the "new machine," and this is about the least mechanical of them all. In other words, acceptance of this item in the original SVIB means rejection of the new machine. When the item stands alone, it is likely to reflect acceptance of the new machine. (One group of psychometricians found it carried the wrong sign in their data so they inverted it!)

Table 51.—SVIB Items Correlated With Therapists' Percent Improvement in Patients Who Are Schizophrenic, Depressive, or Neurotic

(Doctors who completed residency before 1959)

Item Number SVIB	Item Number PTQ	Item	N = 47 Schizophrenic Gamma	p	N = 46 Depressive Gamma	p	N = 42 Neurotic Gamma	p
19	3-32	Carpenter**	—.49	.001	—.51	.002	—.47	.02
56	3-41	Machinist	—.37	.02	(—.37	.07)	(.—34	.07)
60	3-43	Mechanical Engineer**	(—.29	.06)	(—.29	.06)	(—.33	.08)
94	3-52	Toolmaker**	—.45	.003	(—.29	.07)	(—.34	.06)
188	3-71	Repairing Elec. wiring	—.36	.03	—.38	.02	—.42	.05
310	*	John Wanamaker, Merchant	—.37	.03	—.40	.03	—.64	.001
38	3-37	Floorwalker	—.54	.03	—.62	.02		
71	3-46	Poet	.34	.03	.30	.05		
155	*	Excursion	(.36	.08)	.47	.02		
87	3-49	Ship Officer**	(—.28	.08)			—.38	.05
130	*	Physiology	(.64	.06)			.68	.02
132	*	Shop work	(—.29	.06)			—.39	.04
332	*	Immediate vs. 5 years(A)	(—.26	.09)			—.40	.05
359	3-23	Jealous vs. conceited(A)	—.37	.03			—.54	.01
90	3-50	Specialty Salesman**			(—.33	.07)	(—.34	.09)
105	3-56	Bookkeeping			—.38	.04	—.51	.01
119	3-58	Literature			.49	.04	.67	.007
129	*	Psychology			(.54	.08)	.59	.04
148	3-61	Solving mechanical puzzles			(—.26	.10)	—.43	.03
149	3-62	Performing sleight-of-hand tricks			—.46	.003	—.37	.05
190	*	Operating machinery			(—.28	.09)	(—.35	.09)
279	4-6	People who chew gum			.51	.02	(.34	.15)
280	4-7	Athletic men			—.41	.03	—.50	.02
316	*	Chairman, Educational Committee			.34	.05	(.40	.06)
340	3-10	Small pay, large oppor. vs. Good pay(B)			.51	.02	.57	.02

In parentheses are relations between the .05 and the .10 level.

*Not included in the PTQ; see footnote to table 53.

**Original 23 A-B items.

(A) The A's prefer the second choice.

(B) The B's prefer the second choice.

One of the doctors did not have enough depressive patients to give a reliable improvement rate; five of them did not have enough neurotic patients.

Table 52. SVIB Items Correlated With Therapists' Percent Improvement in Patients Who Are Schizophrenic

(Doctors who completed residency before 1959)
N = 47

Item Number SVIB	Item Number PTQ	Item	Gamma	p
13	*	Auto Repairman	—.31	.04
33	3-35	Employment Manager	—.34	.03
44	3 38	Interpreter	.32	.04
46	3-39	Jeweler	—.36	.03
158	3-64	Conventions	.33	.03
159	*	Full-dress affairs	.32	.04
170	*	Snakes	.41	.01
184	3-67	Social problem movies	.40	.04
189	3-72	Cabinetmaking**	—.35	.03
195	*	Arguments	—.34	.04
221	3-75	Expressing judgments publicly regardless of criticism	.35	.03
297	*	Opportunity to understand just how one's superior. . .	.40	.02
311	1-18	President of a society or club**	.48	.02
314		Member of a society or club	—.30	.05
323	*	Chauffeur vs. chef (B)	.32	.04
334	3-26	Taking a chance vs. playing safe (B)	.40	.008
341	3-19	Work involving few details vs. many details (A)	—.32	.03
352	3-28	Nights spent at home vs. away (A)	—.47	.004
355	2-31	Few intimate friends vs. many (A)	—.37	.04
367	1-2	Accept just criticism without getting sore**	.50	.004
376	1-62	Able to meet emergencies quickly and effectively	.58	.006
383	1-68	Stimulate the ambition of my associates	.33	.03
387	*	Am approachable (43-4-0)***	.69	.04
Between the .05 and the .10 level:				
9	3-30	Author of a novel #	.45	.10
40	3-36	Foreign Correspondent #	.39	.06
93	3-51	Surgeon #	.26	.10
136		Zoology	—.44	.07
138		Fishing	.31	.06
139		Hunting	.28	.08
140		Tennis	.42	.08
147		Observing birds	.25	.10
162		Animal zoos (opposite in sign to 136 above)	.34	.08
191		Handling horses	.30	.06
209		Adjusting difficulties of others (43-4-0)***	.58	.09
232		Looking at a collection of rare laces	.36	.06
299		Freedom to work at one's own methods of doing the work	.35	.06
364		Usually get other people to do what I want done	—.29	.07

*Not included in PTQ; see footnote table 53. **Original 23 A-B items.
***Figures in parentheses indicate distributions skewed toward "T."
Included to break up a list of items all disliked by "A" doctors.
(A) The A's prefer the second choice. (B) The B's prefer the second choice.

Table 53. SVIB Items Correlated With Therapists' Percent Improvement in Patients Who Are Depressives

(Doctors who completed residency before 1959)
N = 46

Item Number SVIB	Item Number PTQ	Item	Gamma	p
17	3-31	Building Contractor**	—.39	.01
42	*	Hotel Keeper or Manager	—.34	.04
48	3-40	Labor Arbitrator	.33	.04
64	3-44	Office Clerk	—.74	.004
74	3-47	Private Secretary	—.40	.03
80	3-48	Retailer	—.39	.02
99	3-53	Wholesaler	—.43	.01
102	3-54	Agriculture	—.35	.04
153	*	Amusement parks	—.31	.05
166	3-65	Musical Comedy	—.56	.04
205	3-73	Being called a nickname	—.36	.03
215	*	Writing reports	—.35	.03
233	4-1	Looking at a collection of antique furniture	—.33	.04
245	4-3	People who have made fortunes in business	—.45	.008
260	*	Side-show freaks	—.41	.02
326	3-12	House-to-house canvassing vs. gardening (B)	.51	.02
339	*	Work in a large corporation with little chance of becoming president vs. work for small business (B)	.32	.04
373	2-3	Am always on time with my work	—.45	.01
Between the .05 and .10 level:				
25		Civil Service Employee	—.36	.07
37		Farmer	—.28	.07

* Not included in the PTQ. The criteria for inclusion were generally as follows: (1) The significance level .04 (two-tail) generated about 80 items; this was felt to be an upper limit in a questionnaire of about 225 items, including these 80 A-B items. (2) Included also are a few items (9, 40, 93) needed to break up a sequence all of which tend to be disliked by A doctors. (3) A number of original A-B items are included in the PTQ even though reanalysis has shown they are not significant predictors. They are included to facilitate comparisons with other studies. (4) Some items significant at .04 are not included because they are "out-of-style" (155, 159, 260, 310), buried in long contingency series (296-297), very skewed (129, 130, 278, 387), or redundant (13, 103, 132).

** Original 23 A-B items.

(B) The B's prefer the second choice.

Table 54. SVIB Items Correlated With Therapists' Percent Improvement in Patients Who Are Neurotics

(Doctors who completed residency before 1959)
N = 42

Item Number SVIB	Item Number PTQ	Item	Gamma	p
8	3-29	Auctioneer	—.40	.04
11	*	Auto Salesman	—.38	.05
21	3-33	Cashier in a Bank	—.53	.02
101	3-55	Algebra	—.78	.008
103	*	Arithmetic	—.63	.02
115	3-57	Geometry	—.61	.01
173	3-66	Detective stories	—.47	.02
185	3-68	Making a radio set **	—.41	.03
186	3-69	Repairing a clock	—.52	.005
237	4-2	Absentminded people	.44	.02
255	4-4	Foreigners	—.47	.03
269	4-5	People who talk very slowly	.52	.02
278	*	Men who use perfume	.49	.05
296	*	Opportunity to ask questions and consult about diff.	.38	.05
336	1-70	Work for yourself vs. carry out program (B)	.51	.02
353	2-35	Reading a book vs. going to movies (B)	.47	.01
386	3-24	Smooth out tangles and disagreements between people	—.73	.01
Between the .05 and .10 level:				
7		Athletic Director	—.35	.07
15		Bank Teller	—.44	.08
22		Certified Public Accountant	—.42	.06
51		Lawyer, Criminal	—.35	.07
67		Pharmacist	—.31	.10
70		Playground Director	—.35	.06
79		Reporter—sporting page	—.33	.09
83		Scientific Research Worker	.37	.07
116		History	.38	.06
171		Sporting pages	—.39	.06
212		Doing research work	.38	.09
239		Quick-tempered people	.40	.09
240		Optimists	—.32	.10
262		People with protuding jaws	.60	.06
264		Blind people	.34	.09
267		People who always agree with you	.39	.07
268		People who talk very loudly	.47	.09
275		Bolshevists	.41	.06
304		Henry Ford, Manufacturer	—.34	.08
303		Thomas A. Edison, Inventor	.41	.09
348		Present a report in writing vs. verbally (B)	.39	.06
350		Playing baseball vs. watching (A)	—.41	.06

* Not included in PTQ; see table 53.

** Original 23 A-B items.

(A) The A's prefer the second choice.

(B) The B's prefer the second choice.

When the drug-prescribing data became available to me, it was clear that Phipps residents had started to prescribe drugs almost immediately after the drugs had been introduced in 1955; 12 of the 47 therapists had prescribed drugs for at least some of their schizophrenic patients. Item analyses were repeated for the other 35 who had prescribed no drugs, and these analyses are shown in tables 10-13 in chapter IV. It is these analyses that are used for determining how the PTQ is scored.

Clustering items resulted in the variables presented in tables 14, 15, and 18, chapter IV. The means and standard deviations of these variables are presented in table 55.

In table 55, it can be seen that the percent of schizophrenic patients improved is 60.8 for the 35 therapists who did not prescribe drugs. For the therapists who prescribed drugs, the percent improved is 80.5 for their patients who got drugs, and 76.0 for those that did not. The dramatic increase in percent improved is part of a time trend that went on during the period that Whitehorn and Betz collected data. This time trend is present in the period before the drugs were introduced.

The time trend poses the following questions: Were the patients less disturbed as time went on (e.g., coming to treatment earlier)? Or were the therapists getting better at treating schizophrenics? If the former were the case, there should be no correlation between therapists' A-B scores and the time they began their residencies. If on the other hand, there is a correlation between the therapists' A-B scores and the time they began their residencies, and this correlation is at least as large as the correlation between the percent-of-patients-improved and time, then it is difficult to explain the trend in terms other than an "improvement" in the therapists.

The latter is the case. Among the 35 therapists who prescribed no drugs, TOTL S is correlated .44 with the year they began their residency, while the percent-improved correlates only .31 with that year. For this reason, the time trend was not partialled out in the various analyses. Such partialling would have "robbed" some of the variance in therapist performance that we seek to explain.

One other set of analyses may be of interest to some readers. It will be recalled that the "functional reversal" refers to the fact that the "A-B Scale" reversed when applied to therapists treating outpatients in the Veterans Administration. This has widely been interpreted that the A's are more effective with schizophrenics, while the B's are more effective with neurotics. Other explanations are considered in chapter VI. Because of this widespread interpretation, careful attention was given to any SVIB item that might possibly have similar or dissimilar correlations with the percent-improved of schizophrenics and the percent-improved neurotics. Using .10 as the significance level, no items were found that carry the *same* sign with both criteria. Two were found with *opposite* signs:

> Item 113, Geography, has a gamma of + .54 at .04 with the percent-improved of neurotics, and a gamma of −.41 at .09 with the percent-improved of schizophrenics.
>
> Item 209, Adjusting difficulties of others, has a gamma of + .49 at .10 with the percent-improved of schizophrenics, and a gamma of −.72 at .10 with the percent-improved of neurotics. Actually, of the 35 therapists, 30 say they like this item, the other 5 being indifferent to it. These 5 therapists are low on the schizophrenic criterion and high on the neurotic one.

Unfortunately, neither of these items was included in the PTQ. The geography item is the only thing in the PTQ that reflects anthropological concerns, the kind of concerns that are widespread in psychoanalytic writings. The "adjusting" item makes some sense in that social adjustment is a serious problem for schizophrenics but not for neurotics.

It is doubtful that these two sets of relatively weak relationships can be taken as support for the popular interpretation of the functional reversal of the "A-B Scale." Much more substantial reversals are presented in chapter VI for some personality disorders, as compared with both schizophrenics and neurotics.

Table 55.—Phipps Clinic Therapists—Means and Standard Deviations

Variable	Mean	Standard Deviation
35 Who Did Not Prescribe Drugs for Schizophrenics		
W-B 23	12.11	4.41
W-B 22	22.91	7.32
% IMPRV S	60.80	23.16
% IMPRV D *	78.97	15.61
% IMPRV N **	83.97	18.08
TOTL S	21.57	6.59
TOTL D	24.34	8.03
TOTL N	14.74	5.66
SD	5.49	3.32
DN	4.09	1.76
S	16.09	4.30
D	14.77	4.38
N	10.66	4.45
S OTHR	8.63	3.12
D OTHR	6.63	2.64
N OTHR	10.03	2.62
SXPRSA	3.97	1.64
SXPRSS	5.49	1.62
SQUEST	2.80	1.73
DBUSNS	15.66	5.14
DCIVIC	3.29	1.60
NSOLVE	6.57	3.82
NQEST1	4.49	1.27
NQEST2	1.69	1.25
12 Who Prescribed Drugs for Half or More		
% IMPRV S (Drugs)	80.50	11.22
ABDRUG	7.17	2.82
% IMPRV S (No drugs) ***	76.00	30.23

* N = 34 ** N = 32 *** N = 10

Appendix 6

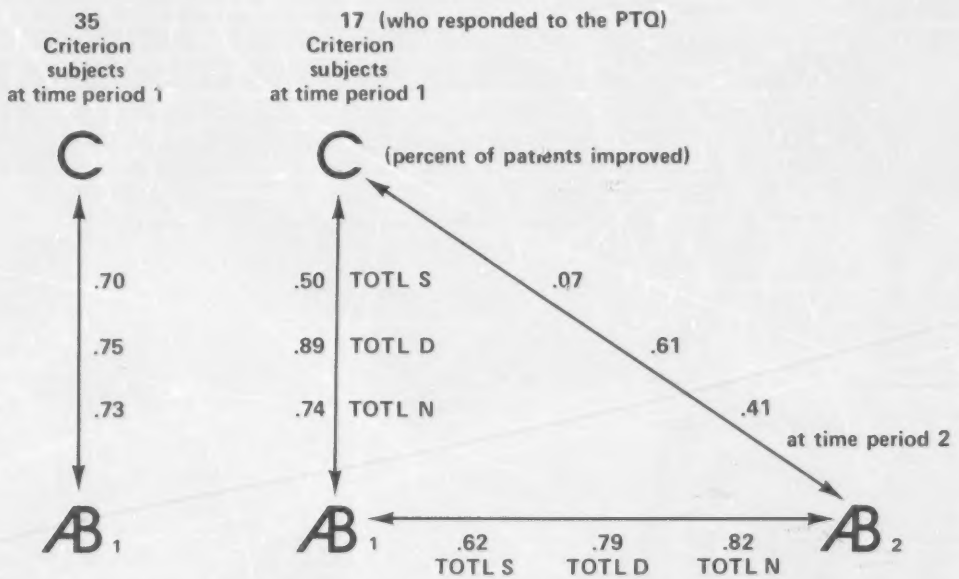
PTQ Analyses of the Phipps Clinic Therapists

At the time the second study was planned, the former Phipps residents were to be asked to respond to the PTQ for two reasons: (1) to determine the long-term stability of the A-B measures by comparing their earlier responses to their present ones; (2) if stability were high, to determine whether any of the presently measured personality characteristics relate to their original success with schizophrenics. These objectives were seriously challenged when it became apparent that it would be necessary to subdivide the sample for various purposes (e.g., prescribed drugs vs. did not, hospital vs. nonhospital, etc.) The largest cell we have is the 35 doctors who did not prescribe drugs. Of this 35, 3 are dead and 2 more are no longer in clinical work. Of the remaining 30, 17 responded to the PTQ. These 17 were analyzed for whatever could be learned from so small a group.

With respect to long-term stability, it is already known that profiles derived from the SVIB have considerable stability over as much as 40 years (Vinitsky, 1973). The present test-retest spans an average of about 25 years. In figure 4, the correlation coefficients on the base of the triangle represent the long-term stability of the three major A-B predictors.

Figure 4

PHIPPS RESIDENTS' CORRELATIONS AT TWO TIME PERIODS



The TOTL S predictor has a long-term stability of .62. The coefficients for TOTL D and TOTL N are .79 and .82 respectively.

The fact that the TOTL S predictor has the lowest stability suggests the following question: Since this predictor contains a number of items from the original "A-B Scale," and since these therapists may have known about the scale, could they be distorting their answers consciously or unconsciously as a result of their knowledge? If we divide the individual items within the TOTL S predictor into those that were part of the 23-item scale and those that are not, we find no difference in the stability of the two groups of items. If anything, the original items are slightly more stable. In other words, for this group of therapists who prescribed no drugs we can find no evidence of distortion which could be traced to knowledge of the "A-B Scale" and its component items.

Looking now at the coefficients on the left of figure 4, for the 35 original therapists, the three A-B predictors reproduce the original criteria, percent of patients improved, at .70, .75, and .73 for TOTL S, TOTL D, and TOTL N, respectively. For the 17 who responded to the PTQ these coefficients are .50, .89, and .73 for their *original* responses to the SVIB, showing considerable loss of power for the TOTL S predictor when we move from the 35 to the 17.[1] If we compute their current responses to these items, the TOTL S predictor has no power at all (.07). TOTL D and TOTL N do much better at .61 and .41 respectively.

The complete failure of the TOTL S predictor is due in part to the somewhat lower test-retest coefficient of .62. But the major loss in power is due to attenuation of the criterion (see page 61). The 18 therapists not included are much more at the extremes of the criterion, i.e., very high or very low in percent of schizophrenic patients improved. In other words, the failure of the TOTL S predictor is primarily a failure of the 17 therapists to adequately represent the original criterion for schizophrenics. There is no readily available explanation why the nonrespondents include so many who are either high or low on the criterion.

Finally, we can ask whether the manifest personality scales in the PTQ are related to the success these therapists had 20 years ago. For the 17 therapists' percent of schizophrenics improved there are no significant correlates. For 10 in nonhospital settings there are the following correlates with percent of schizophrenics improved: Deference Anxiety, .66; and Nurturance Anxiety, .63. These do not confirm the "correlates of correlates" in table 16.

For the 17 therapists' percent of depressives improved, the current correlates are: Work Ethic, −.48; Remorse, −.52; and Fervor, −.57. For the percent of neurotics improved, the current correlates are: Need for Order, −.50; Remorse, −.68; and Nurturance Anxiety, .51. Of these six coefficients, only two confirm the "correlates of correlates" in table 16 (Work Ethic and Nurturance Anxiety). Failure to confirm could mean that the 46 therapists in table 16 are not representative of what the 35 therapists were like as residents, or it could mean that the 17 therapists are not representative, or it could mean that the 17 have changed enough over the 20-year period to change the correlations. We know, of course, that the 17 are not representative for percent of schizophrenic patients improved.

In any event, the relationships above are not unreasonable in themselves. (It had been expected that Remorse would predict lack of success with neurotics, but it does not show in table 16.) The general conclusion of this appendix is that the respondents are too few and not representative of the original group.

[1]For the 18 nonrespondents, r is .92, significantly different from the .50 at the .05 level (two-tail).

Appendix 7

Additional Analyses—Second and Third Studies

This appendix presents some additional tables and some additional analyses. Specifically, the intercorrelation of the PTQ manifest personality scales is presented in tables 56, 59, and 62 for the 46 nonhospital psychiatrists, the 43 hospital psychiatrists, and the 51 Loysville helpers. In general these tables show that while the two groups of psychiatrists are not greatly different from each other in the patterns of intercorrelation of these basic personality variables, the pattern of intercorrelation for the Loysville helpers is decidedly different, probably reflecting the needs of this institution to deal with quite different clientele.

Table 57 presents the intercorrelation of the A-B predictors and clusters for the 46 nonhospital psychiatrists. This can be compared with similar intercorrelations for the 35 no-drug Phipps residents in table 14, chapter IV.

Table 58 presents the correlations of A-B predictors and clusters with the PTQ manifest personality scales for the 43 hospital psychiatrists. Comparison of this table with a similar one for the 46 nonhospital psychiatrists (table 16) shows how different are the correlates of the A-B variables. As discussed above, the A-B predictors and clusters are only useful for the no-drug situation, except ABDRUG (see tables 17-19). Tables 60 and 61 present means and standard deviations for various subgroups of the sample.

Background Characteristics. Psychotherapists are all Class I in the Hollingshead scale of Socio-Economic Status. But we can ask about the social class of their origin—their fathers' social class. This variable produced not one significant correlation, nor do its components, fathers' occupation and education. Mothers' occupation and education were also of no consequence.

Once when I asked Barbara Betz what contributed to a person's becoming an "A" therapist, she said that she had found that "A" therapists had had personal experience with persons who suffered severe mental disorders. Accordingly I asked respondents whether, when they were growing up, they had had a friend or relative with a severe disorder, and, if so, how often they had seen this person suffering. One scale for their responses is: no such friend or relative, had such but did not see, had such and saw occasionally, had such and often saw suffering from the disorder. This scale has a significant positive correlation with D (.33) and with NQEST1 (.32) and is certainly worthy of further investigation. At Loysville, the scale is negative with improvement in situationals (−.45).

Age of Therapist. It is not uncommon to observe that the older generation is less tolerant. Whether this is generational or maturational is unclear. Among the nonhospital psychiatrists, age is negatively related to SD, TOTL D, DBUSNS, and NSOLVE. Among psychiatrists as a group, age is negatively related to Regression in the Service of the Ego, Tolerance of Ambivalence, Deference Anxiety, and Nurturance Anxiety. However, the intercorrelation matrices of older and younger psychiatrists are not different, provided hospital and nonhospital groups are kept separate. It is the hospital-nonhospital break which is critical for the correlates of the A-B predictors and clusters.

Females. Considerable attention was given to how the females in the second study might differ from the males. Unfortunately, there are

Table 56.—Intercorrelation of the PTQ Personality Variables, *Non*hospital Psychiatrist and Residents

Pearsonian r's N = 46

Personality Variable App. 4 Table Number	Need for Closure	REGRSN	MPTHCI	WRKETH	NORDER	UNREAL	AMBIVL	DECISN	STNDRD	REMORS	ANTIDM	INDIVDL	DEFANX	NRTANX	SCIENC	INTLEC
32 Regression in the Service of the Ego	—.467															
33 Empathic Interest	—.556	.379														
34 Work Ethic	.210	—.188	.089													
35 Need for Order	.272	—.177	—.367	.225												
36 Tolerance of the Unreal Experience	—.418	.387	.258	—.150	—.169											
37 Tolerance of Ambivalence	—.266	.075	.115	—.081	.105	.034										
38 Preference for Decision Making	—.529	.175	.323	.018	—.345	.229	.326									
39 High Personal Standards	—.205	.044	.013	—.216	—.311	—.150	.024	.292								
40 Remorse	.168	.021	—.011	.336	.102	—.151	.089	—.126	—.114							
41 Antidemocratic	.283	—.367	—.323	.267	.208	—.527	—.088	—.388	.083	—.091						
42 Individualism	—.354	.569	.254	—.081	—.232	.324	.170	.063	—.143	.137	—.377					
43 Deference Anxiety	—.349	.521	.236	—.222	—.143	.194	.040	.073	—.101	—.004	—.210	.452				
44 Nurturance Anxiety	—.254	.103	.056	—.154	.031	.201	.254	.096	—.059	.082	—.165	.227	.061			
45 Science and Moral Values	.001	—.013	.057	.191	—.214	.301	—.288	.163	.075	.105	—.095	—.006	—.168	—.101		
46 Preference for Intellectual Challenge	—.012	.355	—.169	—.059	.043	—.054	.073	—.128	.038	.127	.222	.255	.265	—.103	.031	
47 Extroversion	.015	.285	.153	—.074	—.319	—.151	—.070	.276	.095	—.090	—.147	.149	.220	.076	.027	.114
50 Work Activity	—.213	.047	.090	.272	.186	.207	.037	.081	—.065	—.050	—.016	.093	.121	.010	—.048	—.047

Significantly different from zero:

at .05, r = .291

at .01, r = .376

The correlation between XTRAVR and WRACT is —.299.

Table 57.—Intercorrelation of the A-B Predictors, Drug-Free Relationships, Nonhospital Psychiatrists and Residents

Pearsonian r's N = 46

	for Schizophrenics						for Depressives					for Neurotics			
VARIABLE	W-B 22	TOTL S	S	SXPRSA	SXPRSS	SQUEST	SD	TOTL D	D	DBUSNS	DN	TOTL N	N	NSOLVE	NQEST1
TOTL S	.827														
S	.529	.864													
SXPRSA	.165	.535	.735												
SXPRSS	.370	.599	.747	.455											
SQUEST	.670	.591	.472	.005	.115										
SD	.901	.874	.510	.204	.301	.554									
TOTL D	.737	.637	.298	.158	.164	.269	.801								
D	.288	.175	.039	.104	.019	—.025	.262	.759							
DBUSNS	.458	.284	.049	.051	.021	.004	.438	.831	.838						
DN	.245	.125	—.125	—.082	—.119	—.227	.335	.622	.412	.652					
TOTL N	.501	.346	.082	.166	.070	.011	.511	.613	.362	.560	.577				
N	.503	.350	.130	.222	.114	.082	.472	.533	.339	.488	.366	.960			
NSOLVE	.522	.347	.083	.070	.140	.091	.512	.486	.202	.437	.365	.888	.879		
NQEST1	.211	.205	.222	.291	.126	.100	.135	.420	.588	.461	.169	.397	.449	.151	
NQEST2	.071	.053	—.053	—.080	—.106	—.058	.142	.119	—.118	—.081	.460	.201	.040	.023	—.295

Variables are described on pages 35-45.

Significantly different from zero:

at .05, r = .291

at .01, r = .376

Table 58.—Personality Correlates of the A-B Predictors and Clusters, Drug-Free Relationships, Hospital Psychiatrists and Residents

(Pearsonian r's N = 43)

Personality Variable / App. 4 Table Number		for Schizophrenics					for Depressives					for Neurotics				
	W-B 22	TOTL S	S	SXPRSA	SXPRSS	SQUEST	SD	TOTL D	D	DBUSNS	DN	TOTL N	N	NSOLVE	NQEST1	NQEST2
31 Need for Closure	—.039	.073	.227	.281	.129	—.025	—.125	—.012	.105	.027	—.019	.095	.114	.029	.180	—.047
32 Regression in the Service of the Ego	—.244	—.095	.075	.142	.114	—.228	—.257	—.263	—.114	—.194	—.225	—.089	.001	—.116	—.003	—.232
33 Empathic Interest	—.271	—.175	.024	.093	.024	—.147	—.346	—.195	.022	—.076	—.082	—.081	—.049	—.143	.106	—.203
34 Work Ethic	.071	—.054	—.042	.009	—.188	.255	—.051	—.014	.008	.080	.032	.313	.321	.333	.164	—.177
35 Need for Order	—.011	.025	—.059	.072	—.228	—.139	.112	—.037	—.184	—.027	.030	.106	.104	.038	.097	—.022
36 Tolerance of the Unreal Experience	—.310	—.239	—.016	—.062	.158	—.147	—.417	—.392	—.169	—.350	—.273	—.309	—.273	—.222	—.321	—.003
37 Tolerance of Ambivalence	—.120	—082	—.023	—.014	.036	—.087	—.123	.080	.241	.042	.034	.016	.000	—.003	.049	.029
38 Preference for Decision Making	.028	.174	.333	.413	.298	.171	—.063	—.082	.005	—.127	—.195	.076	.143	.053	.313	—.125
39 High Personal Standards	.179	.201	.219	.207	.185	.132	.116	.153	.121	.146	.079	—.009	—.036	—.057	—.006	.267
40 Remorse	—.086	.016	.062	—.002	.055	—.158	—.042	—.127	—.090	—.095	—.202	—.125	—.072	—.067	—.295	.029
41 Antidemocratic	.230	.114	.037	.0	—.007	.260	.165	.147	.113	.173	—.024	.170	.170	.258	.107	—.241
42 Individualism	—.211	—.142	—.079	.026	—.021	—.287	—.168	—.016	.072	.020	.126	.092	.082	—.015	.095	.146
43 Deference Anxiety	.023	.094	.018	.152	—.136	—.023	.151	.317	.406	.334	.015	.109	.115	.134	.056	—.060
44 Nurturance Anxiety	.168	.038	—.157	.205	—.440	.020	.248	.192	.045	.215	.126	.233	.238	.176	.317	—.074
45 Science and Moral Values	.046	.198	.123	—.020	.0	.166	.219	.151	.107	.063	—.107	—.063	—.034	—.034	.024	—.218
46 Preference for Intellectual Challenge	—.180	.001	.162	.175	.081	.021	—.184	—.174	—.038	—.146	—.206	—.314	—.305	—.345	—.168	.082
47 Extroversion	.342	.348	.326	.224	.183	.241	.262	.227	.070	.044	.179	.268	.268	.142	.280	.091
50 Work Activity	—.086	—.153	—.213	—.222	—.150	—.260	—.035	.231	.277	.397	.347	.139	.087	.003	—.088	.139

Single underlining means significantly different from zero at .05, two-tail. Double underlining, .01.
Variables in the heading are described on pages 35-45.

Table 59.—Intercorrelation of the PTQ Personality Variables, Hospital Psychiatrists and Residents

Pearsonian r's N = 43

Personality App. 4 Table Number		Need for Closure	RGRSN	MPTHCI	WRKETH	NORDER	UNREAL	AMBIVL	DECISN	STNDRD	REMORS	ANTIDM	INDVDL	DEFANX	NRTANX	SCIENC	INTLEC
32	Regression in the Service of the Ego	—.366															
33	Empathic Interest	—.382	.438														
34	Work Ethic	—.107	.027	—.011													
35	Need for Order	.161	—.151	—.317	—.077												
36	Tolerance of the Unreal Experience	—.127	.487	.258	—.037	—.364											
37	Tolerance of Ambivalence	—.467	.276	.431	.103	—.450	.381										
38	Preference for Decision Making	—.455	.322	.414	.087	—.334	.221	.388									
39	High Personal Standards	—.158	.186	—.237	—.180	—.007	—.045	.021	.176								
40	Remorse	.024	.283	.232	.032	.008	.146	.090	.022	—.055							
41	Antidemocratic	.272	—.302	—.225	.329	.069	—.406	—.317	—.034	.028	.099						
42	Individualism	—.166	.413	.477	—.211	—.019	.290	.325	.183	—.027	.322	—.455					
43	Deference Anxiety	—.400	.137	.110	.036	—.226	—.023	.262	.283	.070	.001	—.052	.051				
44	Nurturance Anxiety	.141	—.011	—.123	.092	.128	—.269	—.148	—.024	.112	—.177	.090	—.003	.319			
45	Science and Moral Values	—.049	—.061	—.076	—.055	—.025	—.152	—.099	.0	.049	—.278	.190	—.174	.235	.190		
46	Preference for Intellectual Challenge	—.262	.313	.079	—.111	.016	.434	.113	.184	.247	.164	—.098	.146	.174	—.203	.069	
46	Extroversion	—.370	—.017	.076	.058	—.172	—.140	.352	.376	.168	—.262	—.052	—.071	—.151	—.015	.057	—.121
50	Work Activity	—.020	.212	—.082	.043	.119	.061	.055	—.218	.220	.055	.009	.106	—.011	.010	—.066	.124

Significantly Different from zero:

at .05, r = .301

at .01, r = .389

The correlation of XTRAVR with WRKACT is —.069

Table 60.—PTQ Variables—Psychiatrists and Residents

Variable	Nonhospital Psychiatrists						Hospital Psychiatrists					
	Experienced		Residents		All		Experienced		Residents		All	
	$\bar{x}$	σ	$\bar{x}$	σ	$\bar{x}$	σ	$\bar{x}$	σ	$\bar{x}$	σ	$\bar{x}$	σ
Need for Closure	5.16	2.85	4.57	2.41	4.98	2.71	4.81	1.94	3.82	2.70	4.30	2.39
Regression	23.47	9.36	24.86	6.14	23.89	8.47	24.05	8.86	27.18	7.10	25.65	8.06
Empathic Interest	10.63	2.15	10.86	1.88	10.70	2.05	11.05	2.13	11.36	2.48	11.21	2.29
Work Ethic	4.88	2.00	4.64	3.37	4.80	2.46	5.00	2.59	3.77	1.41	4.37	2.14
Need for Order	4.25	1.50	4.43	2.90	4.30	2.00	4.05	2.01	3.73	2.62	3.88	2.32
Tol Unrealistic	7.25	3.24	8.29	1.73	7.57	2.89	7.14	3.65	7.09	2.91	7.12	3.25
Tol Ambivalence	9.50	2.58	10.43	2.03	9.78	2.44	10.05	1.99	11.27	2.00	10.67	2.07
Pref. Decision Making	6.25	1.74	7.00	1.52	6.48	1.70	6.14	1.68	6.86	1.55	6.51	1.64
High Standards	1.84	0.45	1.79	0.58	1.83	0.49	1.62	0.74	1.82	0.39	1.72	0.59
Remorse	9.06	2.91	8.43	2.68	8.87	2.83	10.62	2.38	10.50	2.50	10.56	2.41
Antidemocratic	7.75	5.00	6.43	4.42	7.35	4.82	6.62	4.43	5.41	4.17	6.00	4.29
Individualism	13.16	3.28	13.64	3.67	13.30	3.37	12.67	3.48	12.77	3.62	12.72	3.51
Deference Anxiety	4.91	2.97	6.57	2.93	5.41	3.02	5.48	2.69	6.73	3.40	6.12	3.10
Nurturance Anxiety	1.72	1.28	3.07	1.64	2.13	1.51	1.95	1.47	2.09	1.63	2.02	1.54
Science	1.25	0.92	0.64	0.84	1.07	0.93	1.00	0.84	1.00	0.82	1.00	0.82
Pref. Intellectual	4.50	1.67	3.50	2.18	4.20	1.87	4.05	1.75	4.18	1.68	4.12	1.69
Extroversion	8.88	3.71	9.14	3.82	8.96	3.71	8.33	2.99	9.77	3.05	9.07	3.07
Fervor	4.97	2.88	4.14	2.11	4.72	2.67	5.43	2.75	4.45	2.34	4.93	2.57
Life Satisfaction	7.22	2.62	7.93	1.86	7.43	2.42	7.71	2.45	8.64	1.97	8.19	2.24
Work Activity	2.09	1.94	2.71	1.86	2.28	1.92	1.86	1.93	1.91	1.63	1.88	1.76
W-B 22	18.66	7.45	23.43	7.47	20.11	7.70	21.71	8.30	21.05	6.96	21.37	7.56
TOTL S	19.66	6.73	22.14	6.55	20.41	6.70	21.57	5.85	21.14	6.36	21.35	6.05
S	15.06	3.64	15.36	4.25	15.15	3.79	15.76	3.92	15.18	3.72	15.47	3.79
SXPRSA	4.22	1.52	4.00	1.41	4.15	1.48	4.24	1.51	4.36	1.50	4.30	1.49
SXPRSS	3.97	1.62	4.36	1.22	4.09	1.50	4.33	1.59	4.14	1.83	4.23	1.70
SQUEST	2.53	1.59	2.86	1.70	2.63	1.61	3.24	1.37	2.64	1.73	2.93	1.58
SD	4.59	4.10	6.79	3.09	5.26	3.92	5.81	3.16	5.95	3.55	5.88	3.33
TOTL D	22.47	7.23	26.43	3.72	23.67	6.59	23.38	6.95	25.32	5.38	24.37	6.20
D	14.13	3.55	15.79	2.83	14.63	3.41	14.00	4.05	15.41	2.91	14.72	3.54
DBUSNS	14.13	4.61	16.86	2.54	14.96	4.26	14.14	5.06	15.77	4.12	14.98	4.62
DN	3.75	1.55	3.86	0.95	3.78	1.38	3.57	1.66	3.95	1.62	3.77	1.63
TOTL N	13.97	4.39	16.07	3.95	14.61	4.33	14.62	4.30	15.68	5.00	15.16	4.64
N	12.63	3.80	14.64	3.86	13.24	3.89	13.43	3.74	14.41	4.84	13.93	4.31
NSOLVE	4.56	3.10	7.79	4.02	5.54	3.68	5.67	3.43	6.18	3.53	5.93	3.45
NQEST1	4.72	1.22	4.79	1.12	4.74	1.18	4.48	1.17	4.82	1.22	4.65	1.19
NQEST2	1.81	1.09	1.36	1.01	1.67	1.08	1.76	0.77	1.95	0.84	1.86	0.80
ABDRUG	8.13	1.70	7.07	1.33	7.80	1.65	7.95	2.09	7.41	2.06	7.67	2.07
Number of Cases	32		14		46		21		22		43	

Coded variables in the stub are described on pages 35-45 and 49.

Table 61.—PTQ Variables—Selected Groups

Variable	Loysville Staff		Normal Volunteers: Male Pre-Med		Normal Volunteers: Male Psychol- Majors		Normal Volunteers: Females		Psychology Interns: Females		Psychology Interns: Males	
	$\bar{x}$	σ	$\bar{x}$	σ	$\bar{x}$	σ	$\bar{x}$	σ	$\bar{x}$	σ	$\bar{x}$	σ
Need for closure	4.63	2.47	5.78	1.86	3.22	1.48	4.38	2.06	4.00	2.24	3.32	1.55
Regression	22.86	9.13	25.67	3.57	28.67	9.71	27.38	6.23	28.35	7.35	31.32	5.37
Empathic Interest	10.51	2.61	10.00	1.66	10.56	2.60	11.19	2.89	12.00	1.62	11.73	1.61
Work Ethic	6.49	2.54	4.89	1.17	4.00	2.06	5.10	2.05	3.65	1.69	3.45	1.63
Need for Order	4.29	2.25	3.33	2.92	3.44	2.60	2.10	1.79	1.71	1.49	3.59	1.92
Tol Unrealistic	6.57	3.24	7.78	2.73	9.67	3.50	9.38	3.20	10.00	3.71	9.68	1.76
Tol Ambivalence	9.37	2.40	8.22	1.79	9.22	2.39	8.90	2.43	10.59	1.66	10.23	1.48
Pref. Decision Making	6.22	1.88	6.33	2.12	6.78	0.97	6.38	1.60	6.71	1.16	6.82	1.26
High Standards	1.69	0.65	1.56	0.73	1.56	0.73	1.71	0.64	1.94	0.24	1.73	0.63
Remorse	9.61	2.71	8.33	2.45	9.44	2.01	10.05	2.18	10.35	2.45	9.68	2.57
Antidemocratic	11.55	6.73	9.89	3.14	7.89	5.90	7.43	4.21	3.65	2.64	3.77	2.39
Individualism	11.80	3.36	10.33	3.00	11.89	3.30	12.81	2.89	14.71	2.80	12.68	2.48
Deference Anxiety	5.75	3.27	4.78	1.99	6.78	2.86	6.67	3.23	7.06	2.44	6.82	2.50
Nurturance Anxiety	1.47	1.57	1.44	1.13	1.22	1.48	1.19	1.33	2.47	1.94	2.32	1.29
Science	1.02	0.87	1.22	0.67	1.44	0.73	0.95	0.80	1.24	0.75	1.27	0.83
Pref. Intellectual	3.98	1.82	4.11	2.15	4.44	1.33	3.52	2.09	3.59	2.27	3.86	1.61
Extroversion	8.65	3.10	10.56	3.78	7.78	3.87	8.76	3.59	11.06	3.51	9.45	4.67
Fervör	6.33	2.80	6.00	1.94	5.78	2.64	4.57	2.56	3.71	1.61	4.27	1.96
Life Satisfaction	7.82	1.97	7.56	1.88	8.00	1.80	6.52	2.58	8.35	1.73	7.36	1.99
Work Activity	2.10	1.80	0.00	0.00	0.00	0.00	3.81	1.69	1.94	1.85	1.91	1.93
W-B 22	19.59	6.02	18.89	4.48	18.56	3.32	20.71	7.36	24.71	5.46	22.95	7.60
TOTL S	18.45	4.58	19.11	2.26	21.67	3.94	21.67	5.31	24.24	5.53	22.18	3.78
S	15.25	3.43	14.00	2.24	17.11	2.85	15.67	2.67	16.24	3.96	15.59	2.34
SXPRSA	4.73	1.34	3.78	0.97	4.11	1.54	3.62	1.60	4.29	1.53	4.32	1.39
SXPRSS	4.65	1.55	4.22	1.20	5.44	1.67	4.71	1.42	4.65	1.32	4.86	1.36
SQUEST	2.59	1.37	1.89	1.05	2.67	1.32	2.62	1.32	3.06	1.78	2.23	1.23
SD	3.20	2.71	5.11	2.57	4.56	2.01	6.00	3.92	8.00	2.96	6.59	3.65
TOTL D	20.73	5.77	24.67	6.38	21.78	4.09	22.90	6.48	29.71	4.71	27.23	6.08
D	14.41	3.38	15.11	3.55	14.78	2.44	13.71	3.00	17.12	2.45	16.77	3.01
DBUSNS	13.65	4.04	15.56	4.88	13.44	3.17	13.62	3.61	17.94	3.23	17.00	4.29
DN	3.12	1.66	4.44	1.94	2.44	1.59	3.19	1.40	4.59	1.06	3.86	1.52
TOTL N	15.02	4.70	13.22	4.47	14.00	5.00	13.67	4.61	15.41	4.23	14.45	3.95
N	14.16	4.44	11.33	4.09	13.67	3.97	12.67	4.20	13.65	4.20	13.23	3.39
NSOLVE	7.02	3.69	4.33	3.04	5.78	3.63	6.57	2.93	7.24	3.56	5.55	3.22
NQEST1	3.67	1.52	3.33	1.66	3.89	1.27	3.43	1.54	4.18	1.19	4.50	1.06
NQEST2	2.06	0.90	2.67	0.71	1.89	1.17	1.38	0.92	1.53	1.01	1.86	0.99
ABDRUG	7.14	2.41	6.00	2.29	6.89	3.10	6.71	2.00	7.53	2.15	7.50	2.20
Number of Cases	51		9		9		21		17		22	

Coded variables in the stub are described on pages 35-45 and 49.

Table 62.—Intercorrelation of the PTQ Personality Scales—Loysville

Pearsonian r's N = 51

Personality Variable App. 4 Table Number		Need for Closure	REGRSN	MPTHCI	WRKETH	NORDER	UNREAL	AMBIVL	DECISN	STNDRD	REMORS	ANTIDM	INDVDL	DEFANX	NRTANX	SCIENC	INTLEC
32	Regression in the Service of the Ego	—.194															
33	Empathic Interest	—.100	.429														
34	Work Ethic	.049	—.530	—.271													
35	Need for Order	.394	—.402	—.241	.426												
36	Tolerance of the Unreal Experience	—.185	.510	.379	—.382	—.381											
37	Tolerance of Ambivalence	—.182	.167	.209	—.109	—.087	.116										
38	Preference for Decision Making	—.271	.331	.116	—.320	—.404	.246	.208									
39	High Personal Standards	—.149	.162	.037	—.063	.092	.020	—.103	.139								
40	Remorse	.154	.040	.164	—.105	.170	.169	.051	.029	.293							
41	Antidemocratic	.025	—.307	—.517	.477	.445	—.487	—.364	—.269	.109	—.299						
42	Individualism	—.091	.293	.328	—.244	—.460	.179	.319	.342	.054	.068	—.601					
43	Deference Anxiety	—.289	.183	—.149	—.076	—.257	.205	—.156	.292	—.029	—.149	.030	—.061				
44	Nurturance Anxiety	—.160	.267	.048	—.280	—.154	.297	.006	.352	.208	—.036	—.167	.003	.282			
45	Science and Moral Values	—.138	.074	.138	—.233	—.158	.125	.142	084	—.168	.175	—.088	.015	.194	—.155		
46	Preference for Intellectual Challenge	—.389	.243	.302	.054	—.170	.090	.424	.200	.029	—.034	—.194	.343	—.254	—.095	.269	
47	Extroversion	—.018	.153	.297	—.046	—.123	.286	.056	.123	.233	.214	—.195	.212	—.138	.249	—.057	.166

Significantly different from zero:

at .05, r = .276

at .01, r = .358

not enough female psychiatrists for separate study. However, we can compare female psychologists-in-training with males, and we can compare female normal volunteers with males. With respect to means, the females are much lower on the need for order, suggesting that they may be well adapted to working with schizophrenics. They may also be higher on individualism, possibly an asset in dealing with conformists and depressives.

With respect to patterns of intercorrelations, there are only a few differences between females and males. (There are no females in the Loysville sample). There are decided differences for three A-B clusters: SD, SQUEST, and NSOLVE (tables 10, 11, and 13). Not only are the correlates different, the females are higher on these scores reflecting their rejection of the traditional male dominance of these interests. Clearly, these three clusters do not measure for women what they measure for men. The other A-B clusters may have meaning for female therapists, but what is really needed is a study where success criteria for women are available for complete analyses.

Loysville. There were some further analyses of the Loysville sample which may be of interest to some readers. Interrater agreement on such things as severity and improvement is not easily computed since no two youths were rated by the same group of judges and helpers. However, intercorrelations suggest a reasonable measure of agreement. With respect to diagnosis, it was found that two of the judges and a number of helpers, particularly those helpers no longer at Loysville, had quite different (and idicsyncratic) frames of reference for the six diagnostic groups. The consensus diagnoses do not include these particular judges and helpers.

Finally, with respect to the Loysville helpers, a number of background analyses were conducted. It was found that the helper's scores on the PTQ personality variables were not related to (1) the number of youths he chose to claim, and (2) the severity of the youths he claimed regardless of whether severity was measured by judges or helpers. There were some significant relations with the age of youth claimed. Specifically, older youths were claimed by those higher in Nurturance Anxiety (.32), lower in the Work Ethic (−.43), higher on Preference for Decision Making and Regression in the Service of the Ego (.32 and .28). Since little else relates to the age of youths, these findings probably do not affect our conclusions. Youths who came to Loysville later were treated by helpers who were higher in Nurturance Anxiety (.55) and Preference for Decision Making (.33) and lower in Antidemocratic (−.28).

Appendix 8

Somatic vs. Psycho-Social Orientations

Drug treatment is considered to be important for psychotherapy because drugs change the patient's behavior. In this way drugs influence the therapeutic relationship. The therapist's treatment orientation toward drugs is also important in the sense that his treatment preferences reflect his personality. Therapists who prescribe drugs may be different from those who do not. Therefore, when we compare drug treatment with no-drug treatment there may be changes from *both* sides of the therapeutic relationship.

The situation is further complicated in the present research in that when we pass from drug treatment to no-drug treatment, the meaning of some A-B predictors may change. These semantic reversals in the meaning of the "A-B Scale" were found when we passed from high-empathic-interest to low, and when we passed from hospital to nonhospital (although we could find no relation between empathic interest and hospital/nonhospital). If it is reasonable to assume that either empathic interest or hospital/nonhospital is associated with drug treatment, then this reversal adds a third complication to the significance of drug treatment when we use certain A-B predictors.

In the present research it is difficult to separate the three effects: the change in patient behavior, the ideologies of therapists, and the semantic reversals. Fortunately, some A-B predictors are not subject to the semantic reversal. Specifically, SXPRSA and SXPRSS have fairly constant meanings across various groups of therapists. They are really manifest scales. SXPRSA has predictive power for the treatment of schizophrenics for two separate groups of therapists *if* no drugs are prescribed. The correlations fall short of significance if the patients are on drugs.

Thus, we consider it possible that the active participative leadership represented by SXPRSA and required for schizophrenics not on drugs may not be so important if drugs are prescribed. Since this difference was found for the same group of therapists, it can be presumed that the difference is not in the therapist's personality but rather in the patient side of the relationship, i.e., a change in the patient when drugs are prescribed. (We have information about drugs only for the schizophrenics at Phipps. All other diagnostic groups are drug free in our data.)

The other A-B predictors for schizophrenics are also probably invalid when drugs are prescribed, probably because they are subject to semantic reversals. Specifically, the W-B 23, and the cluster, SD, which is highly correlated with W-B 23, do not predict for schizophrenics that are receiving drugs. ABDRUG, which is a comparable predictor for schizophrenics receiving drugs, produces similar correlates to those for W-B 23 and SD, suggesting that, though the predictors don't generalize because of semantic reversals, the personalities they represent are somewhat constant regardless of whether drugs are prescribed. Specifically, the correlates suggest that empathic interest and tolerance are needed by schizophrenics.

The question addressed in this appendix is as follows: Are such personality characteristics also related to drug treatment behaviors and ideologies? As noted, we found no difference in the PTQ personality scales between hospital and nonhospital psychiatrists. But hospital/nonhospital is clearly only a tentative approach to measuring treatment ideologies. It is useful because it can be used to describe therapy studies, as well as therapists, but it is a crude measure because drugs are used in many nonhospital settings.

This appendix tries to push a little further into the complexities of treatment and treatment ideologies in relation to personality.

Specifically, it presents (1) the SVIB correlates of drug-prescribing among 17 residents at the Phipps Clinic, and (2) the personality correlates of treatment ideologies among 25 therapists at a short-term inpatient facility.

SVIB Correlates of Drug-Prescribing

Antipsychotic drugs were introduced at the Phipps Clinic almost immediately after they became available in 1955. Dr. Stephens has made available the proportion of each therapist's schizophrenics for whom drugs were prescribed. By correlating this proportion with the therapist's SVIB responses we can characterize the therapists who prescribed drugs for most of their schizophrenic patients. We must bear in mind that when a new type of treatment is introduced, whether a therapist uses the treatment is likely to be influenced not just be his treatment philosophy, but also by his general stance toward new treatments. Moreover, for those therapists whose residencies spanned the introduction period, the proportion may not be as high as for those who came later. Accordingly, we will analyse the 17 therapists who finished their residencies in 1959 or later. The proportion of schizophrenic patients receiving drugs varied from 11 percent to 100 percent with a mean of 55 percent. The item analysis is presented in table 63.

When the items are intercorrelated, four clusters emerge. The largest of these clusters consists of seven items. The therapists who prescribed drugs for most of their schizophrenic patients are more likely to:

26. Like "Clergyman." (Note that this is not in cluster 2 below where one might think it belongs.)
299. Rate higher than some other aspects of work "Freedom in working out one's own methods of doing the work."
302. Dislike "Enrico Caruso, singer." (Note that this does not belong with disliking "actor" below.)
321. Would rather be a "Street-car motorman" than a "Street-car conductor."
328. Would rather "Execute plans" than "Develop plans."
383. Check Yes to "Stimulate the ambition of my associates."
396. Check "Practically never borrow" rather than "Borrow frequently (for personal use)," (Note that this also is not in cluster 2 below.)

Although some of these items do not appear to have much in common, several of them do reflect a preference for *free active execution*, notably 299, 321, and 328. This group of items would conform to some of the stereotypes of a busy, driving, no-nonsense physician.

The second cluster consists of six items. The therapists who prescribe more drugs are more likely to:

103. Be indifferent toward or dislike "Arithmetic."
145. Dislike "Poker."
146. Dislike "Bridge."
280. Be indifferent toward rather than liking "Athletic Men." (Note that this item does not belong with Athletic Director in the fourth cluster below.)
360. If they must choose between "Jealous people" and "Spendthrifts," they prefer the former.
399. They check "Never make wagers" rather than "Frequently make wagers."

As in cluster 1, some of the items don't fit in. But the dislike for poker, wagers, and spendthrifts is very suggestive of some aspects of the Protestant Ethic. This is of interest because Hollingshead and Redlich (1957) reported that psychologically oriented psychiatrists are overwhelmingly from Jewish backgrounds while somatically oriented ones are primarily from Protestant backgrounds.

Cluster 3 is a social cluster. The five items are:

254. Dislike "Gruff men."
300. Rate higher than some other aspects of work "Co-workers—congenial, competent and adequate in number."
354. Prefer "Belonging to many societies" rather than only a few.
363. Check "Yes" to "Win friends easily."
364. Check "Yes" to "Usually get other people to do what I want done."

Table 63.—SVIB Items Correlated With Doctors' Prescribing Drugs for Their Schizophrenic Patients

(17 doctors who ended their residencies in 1959 or later)

Item Number SVIB	Item Number PTQ	Item	Gamma	p
1		Actor (not movie)	—.62	.05
7		Athletic Director	—.50	.05
26		Clergyman	.71	.01
70		Playground Director	—.91	.02
103		Arithmetic	—.54	.04
130		Physiology	1.00	.03
145		Poker	—.52	.04
146		Bridge	—.64	.01
165		Vaudeville	—.68	.02
254		Gruff men	—.66	.02
261		People with gold teeth	.57	.05
268		People who talk very loudly	—.73	.04
280	4-7	Athletic men	—.78	.01
284		Determine the cost of the machine	—.77	.04
285		Supervise the manufacture of the machine	.58	.04
298		Certainty that one's work will be judged fairly	—.60	.02
299		Freedom in working out own methods of doing work	.64	.03
300		Co-workers—congenial, competent, and adequate in number	.60	.02
302		Enrico Caruso, singer	—.56	.03
321		Street-car motorman vs. Conductor (low drug)	.64	.02
328		Develop plans vs. execute plans (high drug)	—.75	.03
354		Belonging to many societies vs. few (low drug)	.64	.02
360		Jealous people vs. spendthrifts (low drug)	.64	.02
363		Win friends easily	.65	.04
364		Usually get other people to do what I want done	.52	.05
383	1-68	Stimulate the ambition of my associates	.57	.05
396		Borrow frequently vs. never (high drug)	—.71	.03
399		Frequently make wagers vs. never (high drug)	—.59	.04
Between the .10 and the .05 level (two-tail)				
82		School teacher	—.49	.10
83		Scientific Research Worker	.55	.09
140		Tennis	—.57	.10
200		Organizing a play	—.44	.10
231		Climbing along the edge of a precipice	.48	.08
250		Religious people	.43	.10
279	4-6	People who chew gum	.54	.06
289		Teach others to use the machine	—.60	.06
308		William H. Taft, Jurist	.48	.09
312		Secretary of a Society or club	.54	.07
358		Tall men vs. short men (high drug)	—.55	.06

(high drug) means that the second choice is preferred by doctors who prescribed drugs for most of their schizophrenic patients.

Many of these items are suggestive of rather casual social relationships.

The fourth cluster has four items and consists of disliking Actor, Athletic Director, Playground Director, and Vaudeville. Do these items reflect a dislike of strutting for an audience?

It should be made clear that these clusters are not so much aspects of a common dimension as they are separate dimensions. Since all of the items are derived from a common criterion, they tend to be correlated, but the correlation among the clusters is small and not statistically significant. In terms of the theory outlined on pages 11-12, drug-prescribing is a phenotype, a resultant of several genotypic forces. It is not a single dimension from the viewpoint of personality correlates.

In summary, the doctor who prescribes drugs for most of his schizophrenic patients is similar to the stereotype of the active, driving, moral, sociable but impersonal, physician, quite in contrast to the relaxed, informal, personally involved stereotype of the psychiatrist. While there is nothing here to suggest that the somatically oriented therapist endorses the work ethic, he does reject SVIB items relating to poker and wagers, which is also an important aspect of the Protestant Ethic.

Of the roughly 30 SVIB items in table 63, only 3 were included in the PTQ and these 3 are not representative. Therefore, the PTQ's collected in the second and third studies (chapters IV and V) are of no use in pursuing these analyses further. However, just before this monograph was finished, a second revision of the PTQ (Form C) was developed to include many of the items in table 63 plus some additional questions on treatment ideology. These are considered further in the next section.

Treatment Ideologies

The last section was concerned with the correlates of "drug-prescribing," the actual behavior. Treatment ideology is only one determinant of treatment behavior. Not only can treatment behavior be influenced by the treatment setting, but as Lionell's study indicates, there are other aspects of personality which have a stronger influence on treatment behavior that treatment ideology. Relating treatment behavior and treatment ideology to personality variables was one of the reasons for developing a second revision of the PTQ.

In this revision (Form C), the following kinds of items were dropped: (1) A-B items not validated in the 35-doctors analysis (tables 10-13), (2) personality scale items which failed to correlate well with the scales they were supposed to be part of, and (3) items which most respondents answered in the same way. In place of these dropped items, most of the items in table 63 were fitted in. In addition, one extra page was added consisting of questions drawn from Strauss et al. (1964); these are further described below.

Form C was administered to 25 therapists in a short-term inpatient facility. These therapists, 14 men and 11 women, ranged from experienced psychiatrists to paraprofessionals. All had had experience working with patients for whom drugs were prescribed. Some of the therapists were ex-addicts. The purpose of collecting these data was to find out whether any of the personality scales in the PTQ correlated with the drug-prescribing clusters shown above, or with the Strauss et al. treatment ideologies.

First, with respect to the drug-prescribing clusters, it should be noted that the clusters were again found to be unrelated to each other except for a significant, *negative* relation between the second (dislike poker, etc.) and third (social) cluster ($-.42$, $p < .05$). The third cluster tends to be negative with the other three which tend to be positive with each other. Thus again it appears that these clusters represent several different personality characteristics.

The "social" cluster does not correlate significantly with any of the PTQ personality scales. It tends to be negative with Nurturance Anxiety ($-.37$, $p < .08$) and positive with Life Satisfaction ($.37$, $p < .08$).

The first cluster, active execution, is negatively associated with Empathic Interest ($-.49$, $p < .02$). The second cluster, which includes poker, bridge, and spendthrifts, is negatively associated with the Preference for Intellectual Challenge ($-.51$, $p < .01$). Its relation to the Work Ethic is *negative*, a nonsignificant $-.29$. The fourth cluster, which in-

cludes actor and playground director, is negatively associated with Regression in the Service of the Ego ($-.53$, $p < .01$).

These findings suggest the *possibility* that drug-prescribing behavior *may* be related to the same personality characteristics that *may* relate to effectiveness of the psycho-social therapies. This emphasizes once more the dangers of trying to study the psycho-social therapies without careful measurement also of the drug therapies which are often administered concomitantly.

With respect to ideologies, the following items were adapted from Strauss et al. (1964):

Somatic treatment ideology:

By and large, when patients are treated with drugs and shock therapies, improvement tends to be only temporary. (False)

Unless organic bases of mental disorders are better understood treatment can not be expected to improve materially. (True)

Drugs and shock therapy continue to be more effective than other forms of treatment for persons hospitalized because of mental disorders. (True)

Sociological treatment orientation:

The social environment of the hospital is an important factor in whether or not the patient will improve. (True)

The chief limitation of using the social environment in the hospital as therapy is that it modifies only the external, outward aspects of the patient's behavior. (False)

The role of social factors in the development of mental disorders is frequently overestimated. (False)

Psychological treatment orientation:

As causes of mental distorder, psychological factors tend to be *less* important than biological or social environmental factors. (False)

Psychotherapy is by far the most humane form of treatment for those hospitalized for mental disorders. (True)

In a majority of cases, trying to treat psychotic schizophrenics with intensive individual psychotherapy is a waste of the therapist's time. (False)

The three were not significantly correlated with each other, but the Somatic tended to be negative with the other two.

The Somatic orientation was positively correlated with the Need for Closure (.54, $p < .01$) and negatively with Individualism ($-.40$, $p < .05$). The Sociologic one was negatively correlated with the Need for Order ($-.40$, $p < .05$) and positively correlated with Deference Anxiety (.52, $p < .01$). The Psychological one was positively correlated with Empathic Interest (.40, $p < .05$) and negatively correlated with the Need for Order ($-.44$, $p < .04$) and Nurturance Anxiety ($-.47$, $p < .03$)

These findings suggest that there is an interaction between the psychosocial therapies and drug treatments. (In chapter VII we have already noted the interaction between diagnosis and treatment, and the possible interaction between treatments and the definition of the outcome of treatments.) The interactions are not adequately handled by random assignment alone, for, while a particular therapy may be effective even though the therapist does not believe in it, few would deny that the therapist's belief in therapy is usually a potent force in treatment.

The issues presented in this appendix are the most difficult that were encountered in this research. I recognized very early that the independent variables were somehow intertwined with each other and with control variables. The hospital/nonhospital distinction is a useful, preliminary solution.

Appendix 9

Multivariate Analyses

In these studies, the analyses have been based on fairly small cells—46 of this, 43 of that, and so forth—too small for reliable multivariate analyses. Taken all together, several hundred PTQ's were collected. Why not throw them all together and conduct a factor analysis? Why not use the major criterion variables as dependent variables in a multiple regression? These are the issues considered in this appendix. While definitive answers will not be forthcoming, one general conclusion is that multivariate analyses are no substitute for some good hard thinking about the data.

In order that the contrast is clear, the analyses reported consist largely of forming subcells on certain objective bases, such as sex, treatment setting, professional status, etc., and then comparing the intercorrelation matrices, or the covariance matrices among these various cells. Although the currently available statistical tests are not ideal for this purpose, it was possible to establish that, so far as A-B predictors are concerned, men are different from women, and hospital psychiatrists are different from nonhospital ones.

Table 64 presents factor analyses for the 89 psychiatrists. The analyses were conducted on the A-B clusters, above the dotted line, and the PTQ personality scales below the line. Work Activity was excluded because it is so skewed that the Pearsonian r's are not reliable. Most of the A-B predictors are not included because they contain overlapping items. The clusters, however, contain no overlapping items. For the group as a whole, one additional variable was added, namely, hospital/nonhospital which defines the subgroups, hoping that it would help sort out the difference. It did not.

While 89 is still too small, it is large enough to illustrate the dangers of relying on factor analysis exclusively for data reduction. Factor analysis assumes a compensatory model. Variables are additive or subtractive; they cannot be additive here and subtractive there. In fact they cannot even be additive in one part of the sample, and irrelevant in another. There is no way for the factor analysis of the total group to show the quite different loadings of SQUEST, SD, DBUSNS, and NSOLVE for the two subgroups. The analysis for the total group tends to dump these variables, the variables of prime interest, into minor factors.

This is not to say that the factor analysis is not useful. Among the manifest personality variables from the PTQ there is a reasonably common structure at least so far as the first two factors are concerned, even though the cells are small. Moreover, the factor analysis seems to place the manifest scale, SXPRSA, in the second factor which has loadings on Preference for Decision Making and High Personal Standards. But then, if meanings are manifest, who needs to analyze? It is particularly with respect to the A-B clusters that we seek information, and it is here that the factor analysis fails us.

Multiple regression likewise assumes an additive, compensatory model unless we build in some interaction terms in advance. Since our task is to find where such terms are needed, they cannot be anticipated in the model. The failure to find any common variables representing success with various diagnostic groups makes it difficult to pool our data.

Analysis of variance, of course, can test for interactions, but the model usually takes the independent variables as attributes, thus throwing away a great deal of information when these variables are in fact ordered classes as they are in our data. Moreover, analysis of variance tends to throw information away if the independent variables are not or-

Table 64.—Varimax Rotation of Principal Components—A-B Clusters and PTQ Personality Scales Psychiatrists, and Residents

	46 Nonhospital Psychiatrists				43 Hospital Psychiatrists				All			
	1	2	3	4	1	2	3	4	1	2	3	4
SXPRSA	−06	−72	−07	−21	24	−39	08	−41	09	−70	08	12
SXPRSS	12	−65	−09	17	−01	−49	−60	−11	19	−48	−44	−33
SQUEST	−10	−03	−51	−21	−21	−70	04	−28	−18	−35	07	−49
SD	36	−26	−68	−11	−32	−46	36	−20	07	−27	42	−62
DBUSNS	58	−09	−38	−17	−06	−01	61	19	18	01	66	−20
NSOLVE	19	−17	−71	24	−08	−30	46	−42	−04	−23	57	−41
NQEST1	00	−26	−22	−58	25	−21	62	−18	−05	−42	58	22
NQEST2	12	−16	09	36	−09	−19	03	69	10	07	−13	−35
NCLOSR	60	−53	−18	−03	66	−25	03	−03	59	−42	21	−01
REGRSN	60	−13	−06	−56	66	27	−24	−24	69	−11	11	19
MPTHCI	55	−42	02	04	73	16	−10	−12	62	−22	03	09
WRKETH	−10	09	64	10	07	−07	24	−44	−26	−08	−02	44
NORDER	−28	46	00	−06	−41	26	14	−09	−42	26	27	34
UNREAL	72	−05	−03	18	46	13	−60	07	65	11	−28	−06
AMBIVL	07	−32	−19	−06	70	−19	−04	15	44	−30	08	10
DECISN	32	−74	10	11	65	−49	−07	−24	41	−67	−04	05
STNDRD	−26	−63	−08	−09	−08	−44	−06	22	−11	−46	−13	−17
REMORS	11	26	40	−12	12	33	−37	−26	17	14	−07	35
ANTIDM	−74	04	06	−15	−46	−11	13	−55	−70	−17	00	23
INDVDL	66	10	−02	−44	56	28	−05	16	64	13	23	17
DEFANX	47	00	−14	−55	39	00	37	−11	41	−12	43	07
NRTANX	27	00	−45	04	−04	15	63	−20	−01	−01	58	−12
SCIENC	21	−10	51	18	−08	−14	21	−10	−01	06	−20	−02
INTLEC	−05	04	27	−74	27	−01	−42	02	20	−12	−15	49
XTRAVR	00	−35	−04	−44	22	−65	16	11	06	−53	06	−12
FERVOR	−27	−26	43	−10	−42	−11	−35	−57	−32	−28	−26	18
SATSFN	04	−54	−03	−06	23	−64	00	−08	09	−59	06	−02
NON/HSP	—	—	—	—	—	—	—	—	17	−08	−01	−08
% of Variance	14.0	12.9	10.5	8.9	15.0	11.3	11.2	8.3	13.1	10.9	8.7	7.3

Decimal points omitted.

thogonal. Hopefully other multivariate models will be developed that more adequately fit the requirements of naturalistic observation and natural experiments.

In the meantime, clinical researchers need to respect the costly character of their data and not be overly impressed with the prestige of elegant models. In the present studies, the breaks came not from multivariate models. They came when I asked the substantive questions: How might these subjects differ from psychotherapists? How might these therapists differ from each other?

Appendix 10

Extracted from:

**Commonwealth of Pennsylvania,
Department of Justice,
Juvenile Court Judges' Commission,
Caseload Classification and
Supervision Approaches
(mimeo), pages 17 to 23.**

Although words or "labels" are used to describe an individual or his behavior, this process only has meaning in terms of assisting us in understanding his behavior and identifying possible supervision approaches. It should be noted that delinquent behaviors are usually indications of underlying problems or situations. The supervising officer must be able to see the juvenile as a human being capable of many behaviors, and he should be aware that terms used to describe some of the child's behavior are only conceptualizations intended to offer a better understanding of the causes of the behavior.

There is another caution which must be considered in classifying behavior. When a juvenile's behavior is classified there is a tendency to view this classification as a final decision, and thus to perceive the child as such, no matter what new behaviors he may demonstrate. This is a misuse of classification since behavior can change at any time, and the supervising officer is responsible for working with a juvenile as he is at the present time, not as he was when he was originally classified. Thus, classification is an ongoing process which takes into account the growth and development of the probationer and any changes in his behavior that may occur.

[The exhibit] provides a basis for the classification of juvenile offenders' behavior, based on the data used to determine appropriate disposition, as developed in the first section of the paper. The Task Force studied various classification systems that had been developed by other professionals in the juvenile justice system, and then adapted the cross-classification of offender typologies developed by Marguerite Q. Warren. This approach allowed the Task Force to consider many classification systems and then adopt a classification method built on considerable research (Warren, 1966).

As in the caseload classification recommendations, seldom will a juvenile fit completely in one supervision category. However, in most instances, a delinquent will usually fit into one category more than another.

In using this system, it must be remembered that it is based on the understanding that supervision must be provided either because of the child's needs or the nature of the offense. For example, the classification of Situational Offender, in this system, is used to describe a client who at least requires informal adjustment. Many children who are adjusted at intake could be seen as Situational Offenders, but some mitigating circumstance requires adjustment at the intake level.

The Situational Offender

The juveniles described by this term are usually found to be normal children who don't appear to have any strong need for supervision—for example, the youngster who is socially well adjusted, but who made a mistake, or was led on by the group. Involvement in delinquent activity is usually accidental or the result of a specific situation which was overwhelming.

Juvenile Offender Behavior

	SITUATIONAL	SUBCULTURAL IDENTIFIER	NEUROTIC	MANIPULATOR ANTISOCIAL	CONFORMIST	ASOCIAL
Nature of Offense	Delinquent act an accident or caused by situation	No substantiated research	No substantiated research	No substantiated research	Client was a follower involved with others	Client probably committed delinquent act alone
Prior Delinquent Behavior	Probably none	Behaviors all accepted by peer group	Property and person offenses	Property offense involving personal gains	Involved with others and identified as follower	Impulsive hostile acts which may have been violent
Threat to self and/or community	No	May be threat to others	Possible threat because of anxiety	Leader who could be threat to others	Possible threat through peer group pressure	Explosive behavior makes him a threat
Family Structure	Probably acceptable	Parents are suspicious and distrustful	Parents are child like and client is expected to be adult	Parents inconsistent in providing love and rejection	Weak parental discipline or indifference	Rejecting parents with possible physical cruelty
Attitude Towards Current Situation	Realistic and regretful	Believes delinquent behavior is acceptable	Denies self image of delinquent	Justifies behavior as warranted or reasonable	Admits responsibility for behavior	Denies responsibility—projects blame onto world
Emotional Adjustment and Control	Probably sound	No obvious problems	Anxious and confused	Emotional isolation	Behavior determined by need for self approval	No impulse control—infantile demands
School Adjustment	Probably good	Identified as acting out and associating with "bad" youngsters	Unusual behaviors noted in records	History of using classmates and instigator	History of attention seeking behavior—performs well when observed	History of acting out uncontrollable rage
Peer Group Relationships	Probably acceptable	Intense peer group relationships	Probably a loner—may have selected friends	Uses others and seeks them as suckers	No close relationships, but attempts are made	A loner—peers see him as strange

Supervision in these cases should be directed toward helping the client solve the specific problem which led to his violating the law. In the example mentioned above, the probation officer would attempt to help the juvenile understand his need to make decisions independent of peer group influence.

The Subcultural-Identifier

Clients described by this term will usually be found to have developed normally, but will have internalized the value system of a minority group. A common example of this kind of juvenile is a child from a middle-class home who joins a commune.

Two levels of supervision are recommended. The first is directed toward stopping the delinquent behavior by demonstrating to the client through discipline, that delinquent behavior is not an effective method in satisfying his or her needs. This method also emphasizes teaching the individual how to meet his status needs in a way that is acceptable in the larger culture. The second level of supervision recommended is focused on changing the content of the client's value system; and, therefore, his self-control. This approach requires working through a relationship with a strong identity model who represents the values of the larger culture. This approach will help the delinquent broaden his self-definition.

Antisocial-Manipulator

Clients described by this term are usually characterized as not having incorporated appropriate social norms. They appear to have no remorse for their delinquent behavior. Supervision recommendations move in two separate directions. One method is to encourage the manipulator to develop his manipulative skills in a socially acceptable direction, to increase social perceptiveness and ability to predict via group treatment and increasing opportunities for legitimate accomplishments via training in work, athletics, etc. The second supervision method allows the offender to work through his childhood trauma in a relationship which will revive or develop his capacity to depend on and be concerned about others. This approach usually involves sustained long-term individual assistance requiring authoritative or external controls and offers limited probability of success. This approach is usually considered impractical in probation settings.

Conformist

This client is best characterized as having an unusually strong need for approval, while presenting himself as problem free. Supervision recommendations include the use of a clear, consistent, external structure in which concern for the offender can be expressed via control of his behavior, use of group work to increase social perceptiveness, use of peer group as a pressure toward nondelinquency, and the teaching of skills in order to help change self-definition in the direction of adequacy and independence.

Asocial Type

This client is usually characterized as having little control over his behavior. He needs immediate gratification and is self-centered. Supervision recommendations include a clear and concrete structure of low pressure, warmth, and acceptance from an extremely patient person. Supervision should be slow and supportive in the direction of conformity, and attempts to reduce the fear of abandonment and rejection should be made through teaching rather than counseling.

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